

Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0892

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Site/Project Name: Diablo Canyon NPP / October 2013

93424

Sacramento CA

Phone Number: 916-440-7955

Phone Number: 805-545-6481

CA

System No:

Billing Agency: RHB

Samples Received by Lab: 10/23/2013

95814-5006

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0892-01	Sample ID: R 94011 Sample Type: Drinking Water	Time Collected: 10/22/2013	08:15 Sampling Point	t: Bio Lab Sink
K-40	EPA 901.1	9.46 +/- 17.1	80.0	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

			NALYSIS (Radio		
Drinking Water and Radia		1	Date Rec	eived ローバス	Lab No. (Leave Blank) 13-0892
850 Marina Bay Parkway, (Richmond, CA 94804	5164		/ Date & Time	Sampled -	
510-620-2911			10/22/13-0		R 94011
Collector Information Name: Pick Treiv Dept./Branch: PO Box S Address: Avila Beach	76		Reporting Informa Name: Dept./Branch: Address:		
Telephone No.: 805-54		* **	elephone No.:		
Sample Information System Name / Facility: Sampling Point (s): System No.:	BIO LAB DW1		Billing Agency DWFOB() DWTPB EMB		OWR CDFG
TYPE OF SAMPLE (Check	all applicable boxes)				
☐ Drinking Water ☐ Raw	☐ Groundwater☐ Water Treatme	ent Plant (WTP) 🗓		em C	Wastewater Point of Use (POU) ated / Coagulated / pH Adjusted
☐ Air Filters	Date/Tir	me [3 Seawater		Sludge (Semi-solid Samples)
Finishing:		Spage 5) Milk		3 Soil/Sediment
•			1 Wipes		Biota (Type):
Net (M ³)			Radon Canister		Other:
☐ Air Charcoal Cartridge					
COMMENTS: (Cautions, e		a triangue (New Art and Art	W 1 CA	190	
☐ Field Treatment: Pres			14.		er : <u>1999 - 199</u>
☐ Field Measurement:			Radionuclide(s)		
☐ Rush/Priority (should be	prearranged and have s	supervisory approv	(al)		
ANALYSIS REQUESTED	For questions, please ca	ili 510-620-2911)			
☐ Gross Alpha	and the second second	☐ Gross Beta		Gamma Sc	an e jeda se jeda se je
☐ Total Uranium		☐ Total Beta (I	SC)	NORM (Ga	mma) i i kati wasaa a afii ja a la a
☐ Total Radium	Jan	☐ Tritium (³ H)		☐ Isotopic Am	nericium / Curium
☐ Radium-226		☐ Carbon-14		☐ Isotopic Plu	itonium
☐ Radium-228		☐ lodine-131		☐ Isotopic Th	orium
☐ Radon-222		☐ Strontium-89	3 90 \	☐ Isotopic Ura	anium 4
Other (Specify);		□ Nickel-63		☐ Iron-55	
CHAIN OF QUSTODY 1.* /0/22/13 Date Date	Name (Print)	nen	Blow	<u>2.</u>	/0/22/13 Date /700
Time Custody Received: 2.	Organization	* / / *	Signature		Time Custody Released
Date	Name (Print)				Date
Time Custody Received 3. 10-23-75	Organization UA		Signature		Time Custody Released
Date 10:00	N. (D.1-4)	URLB	19-	Lora M.S.	Date
Time Custody Received	Organization		Signature	Corac Misse	Time Custody Released
LABORATORY REMARKS	e maji se kacamatan di salah d	€ 0.01=	MR/HO		
A. Condition at Time of Re	ceipt:			\mathbf{Y}_{i}	
Acceptable \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	☐ Broken Co		☐ Leaked in Trans ☐ Insufficient San		improper Container
B. Preservatives/Carriers:					D No Assissable
 Added While Sample 	ing 🗆 Added in I	Laboratory	□ Not Added		☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0893

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

Sacramento

95814-5006 CA

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / October 2013

Samples Received by Lab: 10/23/2013

System No:

Billing Agency: RHB

Units

Parameter

Method

Result +/- CE

MDA 95

Lab No: 13-0893-01

Time Collected: 10/22/2013 08:15

Sampling Point: Bio Lab Sink

Task ID: 13-0893

Sample Type: Drinking Water

Sample ID:

Tritium

EPA 906.0

R 96391

-9.36 +/- 171

294

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR S	SAMPLE ANALYSIS (Radiochemical)	요시하는 이러분이 빨리를 하는데 하다.
Drinking Water and Radiation Laboratory Branch	Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	10-23-13	13-0493
510-620-2911	Date & Time Sampled 10/22//3 - 08/5	Serial Number R 96391
Collector Information	Reporting Information	N 30331
Name: Rich Trainen Dept./Branch: Po Box 56	Name: Dept./Branch:	
Address: Africa Baston, CA 93424	Address:	
	Telephone No.:	
Telephone No.: 805-545-6481 Sample Information	Billing Agency	
System Name / Facility: B/O LAB Sampling Point (s):	DWFOB() RHB D	RWQCB() DTSC DWR DCDFG
System No.: DW1		cify)
TYPE OF SAMPLE (Check all applicable boxes)		The state of the s
	nt (WTP) Distribution System	
☐ Treated (circle one): Chlorinated / Chloraminated / Chl	offie Dioxide / Ozofiated / Peroxizone / Fluori	dated / Coagulated / pri Adjusted
☐ Air Filters Date/Time	☐ Seawater	☐ Sludge (Semi-solid Samples)
Finishing:	□ Milk	☐ Soil/Sediment
Starting:	_ Wipes	☐ Biota (Type);
Net (M³)	☐ Radon Canister	Other: Ivitium Snapk
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):		
☐ Field Treatment: Preservatives added:	lced/Frozen: Ot	her:
☐ Field Measurement:mR/hr		
☐ Rush/Priority (should be prearranged and have supervise		
ANALYSIS REQUESTED (For questions, please call 510-		
	Gross Beta / Gamma S	
	Total Beta (LSC)	
and the second s	Section 2	mericium / Curium
	Carbon-14 Isotopic Al	are the second s
and the state of the	odine-131	
	Strontium-89, 90 Strontium-89, 90 Isotopic U	
	lickel-63 Iron-55	ariiuii)
CHAIN OF CUSTODY	incher-os	
1. /0/27//3 Date Date Time Custody Received Organization	Signature Signature	Date 1700 Time Custody Released
2. Date Name (Print)		Date
Time Custody Received Organization 3. 10 · 23 - 13 U A	Signature	Time Custody Released
Date Name (Print)		n Date
10:00 DWKLP		14-
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) ≤ 0.0 A. Condition at Time of Receipt:		
□ Acceptable □ Broken Container □ Holding Time Exceeded □ Sample Not Coole	□ Leaked in Transit Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers: Added While Sampling	ory D Not Added	☐ Not Applicable



State of California - Health and Human Services Agency

California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0890

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

CA 95814-5006

Phone Number: 805-545-4409

EPA 901.1

Sacramento

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / October 2013

System No:

K-40

Billing Agency: RHB

Samples Received by Lab: 10/23/2013

55.9

pCi/L

Result +/- CE **Parameter** Method MDA 95 Units R 96387 Time Collected: 10/22/2013 08:00 Sampling Point: Diablo Creek Lab No: 13-0890-01 Sample ID: Sample Type: Surface Water

9.00 +/- 12.0

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FOR SA	MPLE ANALYSIS (Ra	diocnemical)	
Drinking Water and Radiat 850 Marina Bay Parkway, G		Date R	eceived 2	Lab No. (Leave Blank)
Richmond, CA 94804			ne Sampled	Serial Number
510-620-2911	93	10/22/13-0	2800	R 96387
Collector Information	60K 3- 56 156 156 16ACH, CA 93424	Reporting Inform	nation	
Name: Tom H	bok 1	Name: Dept./Branch:		
Dept./Branch: Po Bo	156 93424	Address:		
AUGA E	115-4419	Talanhana Na r		
Telephone No.: (805) 5 Sample Information	41 1101	Telephone No.: Billing Agency		
Sample Information System Name / Facility:)IABLO GUESTAL	DWFOB()	□ RHB □ RV	VQCB() DTSC
Sampling Point (s):	552	☐ DWTPB	□ FDB □ DV	VR
System No.:	550	□ EMB	Other (Specify	/)
TYPE OF SAMPLE (Check	all applicable boxes)	and the second		
☐ Drinking Water	☐ Groundwater	Surface Wate	·	Wastewater
□ Raw	■ Water Treatment Plant (Point of Use (POU)
☐ Treated (circle one): Chi	orinated / Chloraminated / Chlorin	ne Dioxide / Ozonated / F	'eroxizone / Fluonda	led / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	☐ Seawater	4/3	Sludge (Semi-solid Samples)
Finishing:		☐ Milk		Soil/Sediment
Starting:		■ Wipes		Biota (Type):
Net (M³)		Radon Canist	er 🚨	Other:
☐ Air Charcoal Cartridge		in the second second		
COMMENTS: (Cautions, etc	c):			
D Field Treatment: Press	ervatives added:	iced/Frozen:	Othe	
☐ Field Measurement:			e(s), if known:	
	prearranged and have supervisor			
		The state of the s		
	For questions, please call 510-620	oss Beta	Gamma Sca	
☐ Gross Alpha ☐ Total Uranium		al Beta (LSC)	NORM (Gam	
☐ Total Cranium		ium (³ H)	☐ Isotopic Ame	
Radium-226		rbon-14	☐ Isotopic Plute	
☐ Radium-228		ine-131	☐ Isotopic Tho	
☐ Radon-222		ontium-89, 90	☐ Isotopic Urar	
Other (Specify);	□ Nic	and the second of the second o	☐ Iron-55	
CHAIN OF CUSTODY				1 1
1. /0/22/13 Date 022	TUTI HOOK	_ /_/_/_		19/22/13
Date (18/11) *	Name (Print)	1/2	Joul	Date /700
Time Custody Received	Organization	Signature		Time Custody Released
2. Date	Name (Print)			Date
				Time Quetado Daladarad
Time Custody Received 3. 10-23-13	Organization () A	Signature		Time Custody Released
Date	Name (Print)	<u> </u>	lovo M. ale	Date
Time Custody Received	Organization	Signature	USTOM.CO	Time Custody Released
a di la companya di manana di m				
LABORATORY REMARKS A. Condition at Time of Rec		OI MR/HR		
☐ Acceptable	☐ Broken Container	□ Leaked in Tr		☐ Improper Container
☐ Holding Time Exceed	led Sample Not Cooled		ample	
B. Preservatives/Carriers:	og □ Added in Laboratory	✓ □ Not Added		☐ Not Applicable
- Audeu Mille Campilli	A			



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0891

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

95814-5006 CA

Phone Number: 805-545-4409

93424

Sacramento

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / October 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 10/23/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0891-01

Sample ID:

R 94015

Time Collected: 10/22/2013 08:00

Sampling Point: Diablo Creek

Sample Type: Surface Water

Tritium

EPA 906.0

-113 +/- 160

280

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch	Date Received / 10-23-13	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sampled	
5/0-620-2911	10/22/13-0800	R 94015
Collector Information	Reporting Information	
Name: Tox1 Hook	Name:	
Dept./Branch: P.D. BOX 5to Address: ANIA GEACH, CA 93424/	Dept /Branch: Address:	de varia de la comissión i continue figurar la constante reconstante de la constante en control de constante d
Address. ANIA BRACITO		
Telephone No.: (805) 547-4409	Telephone No.:	
Sample Information	Billing Agency	WQCB() DTSC
System Hame 7 admy.	DWFOB() RHB R	··· /
Sampling Point (s): 552	☐ EMB ☐ Other (Specif	
System No.:		
TYPE OF SAMPLE (Check all applicable boxes)		
☐ Drinking Water ☐ Groundwater		Wastewater Point of Use (POU)
Raw Water Treatment Plant (WTP) Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	, — -	• • •
Treated (circle one): Chlorinated / Chlorinated / Chlorine Dio.		
☐ Air Filters Date/Time	1	Sludge (Semi-solid Samples)
Finishing:	* 	Soil/Sediment
Starting:		Biota (Type):
Net (M³)	☐ Radon Canister ☐	Other: 74711 SAUPUL
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.).	lced/Frozen: Other	ar:
☐ Field Treatment: Preservatives added:	Radionuclide(s), if known:	
C 1 Icia Micadareniona	. T	
Rush/Priority (should be prearranged and have supervisory app	(Control of the control of the contr	
ANALYSIS REQUESTED (For questions, please call 510-620-2911		
ANALYSIS REQUESTED (For questions, please call 510-620-2911	ta 🔲 Gamma Sci	
	ta Gamma Sca (LSC) NORM (Gai	mma) :
☐ Gross Be	ta Gamma Scr a (LSC) NORM (Gal H) Isotopic Am	mma) ericium / Curium
☐ Gross Alpha ☐ Gross Bet☐ Total Uranium ☐ Total Beta	ta Gamma Scr G(LSC) NORM (Gai H) Isotopic Am	mma) ericium / Curium
☐ Gross Alpha ☐ Gross Bet☐ Total Uranium ☐ Total Bet☐ ☐ Total Radium ☐ Tritium (³I	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am I sotopic Plu	mma) ericium / Curium tonium
☐ Gross Alpha ☐ Gross Bet ☐ Total Uranium ☐ Total Beta ☐ Total Radium ☐ Tritium (³I ☐ Radium-226 ☐ Carbon-1	ta Gamma Sca a (LSC) NORM (Gai H) Isotopic Am I sotopic Plu I sotopic The	mma) ericium / Curium tonium orium
☐ Gross Alpha ☐ Gross Bet☐ Total Uranium ☐ Total Beta☐ Total Radium ☐ Tritium (³I☐ Radium-226 ☐ Carbon-13☐ Radium-228 ☐ Iodine-13☐ ☐ Radium-228 ☐ Iodine-13☐ ☐ Radium-228 ☐ Iodine-13☐ ☐ I	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura	mma) ericium / Curium tonium orium
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ Nickel-63	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura	mma) ericium / Curium tonium orium inium
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ Chain OF Custody ☐ Total Beta ☐ Tritium (³I ☐ Carbon-1 ☐ Carbon-1 ☐ Strontium ☐ Nickel-63	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura	mma) ericium / Curium tonium orium anium _/0/2 2//3
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ Nickel-63 CHAIN OF CUSTODY 1. /0/27//3 Date Name (Print).	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura	mma) ericium / Curium tonium orium artium / 0/2 2 // 3 Date / 700
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ CHAIN OF CUSTODY 1. /0/27//3 ☐ Gross Bef ☐ Total Beta ☐ Total Beta ☐ Carbon-1 ☐ Carbon-1 ☐ Indicated ☐ Strontium ☐ Nickel-63	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura	mma) ericium / Curium tonium orium artium / 0/2 2 // 3 Date
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ CHAIN OF CUSTODY 1. 10/22//3	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura Iron-55	mma) ericium / Curium tonium orium artium / 0/2 2 // 3 Date / 700
☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222 ☐ Other (Specify); ☐ Other (Specify); ☐ Date ☐ Date ☐ Name (Print) ☐ Date ☐ Name (Print) ☐ Name (Print) ☐ Name (Print)	ta Gamma Sca a (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic The Isotopic Ura Iron-55	mma) ericium / Curium tonium prium anium ///2 2//3 Date Date
Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Strontium Other (Specify): CHAIN OF CUSTODY 1. 10/22//3 Date Name (Print) Time Custody Received Time Custody Received Organization Gross Bet Carbon-1 Car	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic Tho Isotopic Ura Iron-55	mma) pericium / Curium tonium prium artium ///22//3 Date //700 Time Custody Released
Gross Alpha Gross Bet Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Strontium Name (Print) Time Custody Received Date Name (Print) Time Custody Received Name (Print) Name (Print) Name (Print) Name (Print)	ta Gamma Sca a (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic The Isotopic Ura Iron-55	mma) ericium / Curium tonium prium anium ///2 2//3 Date Date
□ Gross Alpha □ Total Uranium □ Total Radium □ Radium-226 □ Radium-228 □ Radon-222 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. /0/27//3 Date Name (Print) Time Custody Received Organization 7 Organization Name (Print)	ta Gamma Sca a (LSC) NORM (Gai H) Isotopic Am Isotopic The Isotopic The Isotopic Ura Iron-55 Signature	mma) sericium / Curium tonium orium artium ///22//3 Date //700 Time Custody Released Date Time Custody Released Date
□ Gross Alpha □ Total Uranium □ Total Radium □ Radium-226 □ Radium-228 □ Radon-222 □ Other (Specify): □ Other (Specify): □ Nickel-63 CHAIN OF CUSTODY 1.	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic The Isotopic Ura Isotopic Ura Iron-55	mma) ericium / Curium tonium orium artium ///2 2//3 Date //700 Time Custody Released Date Time Custody Released
□ Gross Alpha □ Total Uranium □ Total Radium □ Radium-226 □ Radium-228 □ Radon-222 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. 10/22//3 Date □ Time Custody Received 7 Tritium (³I □ Carbon-1 □ Iodine-13 □ Strontium □ Nickel-63 CHAIN OF CUSTODY 1. 10/22//3 □ Date □ Name (Print) □ Date □ Organization □ Name (Print) □ Organization □ Name (Print) □ Organization □ Name (Print)	ta Gamma Sca (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic The Isotopic Ura Isotopic Ura Iron-55	mma) sericium / Curium tonium orium artium ///22//3 Date //700 Time Custody Released Date Time Custody Released Date
Gross Alpha Gross Bet Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Strontium Nickel-63 CHAIN OF CUSTODY LOCATION Time Custody Received Rame (Print)	ta Gamma Sca a (LSC) NORM (Gai b (LSC) Stotopic Am l sotopic Plu l sotopic The last sotopic Ura l sotopic Ura	mma) sericium / Curium tonium orium artium ///22//3 Date //700 Time Custody Released Date Time Custody Released Date
Gross Alpha Gross Bet Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Strontium Nickel-63 CHAIN OF CUSTODY 1. 10/22//3 Date Name (Print) Time Custody Received Time Custody Received Organization Name (Print) Time Custody Received Organization	ta Gamma Sca a (LSC) NORM (Gai H) Isotopic Am Isotopic Plu Isotopic The Isotopic Ura Isotopic Ura Iron-55 Signature Signature	mma) sericium / Curium tonium orium antium ///2 2//3 Date /700 Time Custody Released Date Time Custody Released Date Time Custody Released
□ Gross Alpha □ Total Uranium □ Total Radium □ Radium-226 □ Radium-228 □ Radon-222 □ Other (Specify); □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. /0/22//3 Date Name (Print) Time Custody Received Organization 2. Date Name (Print) Time Custody Received Organization	ta Gamma Sca a (LSC) NORM (Gai b (LSC) Stotopic Am l sotopic Plu l sotopic The last sotopic Ura l sotopic Ura	mma) sericium / Curium tonium orium antium ///2 2//3 Date /700 Time Custody Released Date Time Custody Released Date Time Custody Released



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0888

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach CA Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / October 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 10/22/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0888-01	Sample ID: R 94074 Sample Type: Seawater	Time Collected: 10/21/2013 07:45	Sampling Point:	Outfall Water
K-40	EPA 901.1	231 +/- 18.3	73.3	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemica	1)
Drinking Water and Radiation Laboratory Branch	Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sampled	- 13-04 85 Serial Number
510-620-2911	10/21/13 - 0745	R 94074
	Reporting Information	
Name: Tout Fook	Name:	
	Dept./Branch:	
Address: ANLA BEACH, CA 93424	Address:	
Telephone No.: (805) 545-4409	Telephone No.:	range and the second of the se
Sample Information ALDD NUTGALL	Billing Agency	
Sample Information System Name / Facility: DUPP DUTFALL Sampling Point (s):	D DWFOB() RHB	
Sampling Point (s):	DWTPB FDB	DWR CDFG
System No.:	☐ EMB ☐ Other	(Specify)
TYPE OF SAMPLE (Check all applicable boxes)		
□ Drinking Water □ Groundwater	☐ Surface Water	☐ Wastewater
☐ Raw ☐ Water Treatment Plant (WTP)		Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Peroxizone /	Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater	→ ☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk	☐ Soil/Sediment
	☐ Wipes	☐ Biota (Type):
Starting:	☐ Radon Canister	Other:
Net (M³)		
☐ Air Charcoal Cartridge 6 U Z		
COMMENTS: (Cautions, etc.):	American American Constitution	
		Other:
Fleid Weastlement.		
Rush/Priority (should be prearranged and have supervisory appr	val) para di lipra, et etan unitare	
ANALYSIS REQUESTED (For questions, please call 510-620-2911		
☐ Gross Alpha ☐ Gross Bet	1	nma Scan
☐ Total Uranium ☐ Total Beta	(LSC) I NOF	RM (Gamma)
☐ Total Radium ☐ Tritium (³)	☐ Isot	opic Americium / Curium
□ Radium-226 □ Carbon-14	□ Isot	opic Plutonium
□ Radium-228 □ Iodine-13	☐ Isot	opic Thorium
□ Radon-222 □ Strontium		opic Uranium
Other (Specify);		-55
CHAIN OF CUSTODY	<u> </u>	* . / /~
1 10/21/13 / OM HOOK	1-1	10/21/13
Date Name (Print)	- Jour Jord	Date 7/5
Time Custody Received Organization	Signature	Time Custody Released
2.	The second of the second	Date
Date Name (Print)		
Time Custody Received Organization	Signature	Time Custody Released
3. 10-22-13 Name (Print)		Date Date
11:00 DWRLB		Time Custody Released
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank)	IMF/HR	A Commence of the Commence of
A. Condition at Time of Receipt:	○ Leaked in Transit	☐ Improper Container → 🛝
☐ Acceptable ☐ Broken Container ☐ Holding Time Exceeded ☐ Sample Not Cooled 、	☐ Insufficient Sample	
B. Preservatives/Carriers: Added While Sampling D Added in Laboratory	□ Not Added	□ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0889

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / October 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 10/22/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0889-01	Sample ID: R 94014 Sample Type: Seawater	Time Collected: 10/21/2013 07	:45 Sampling Poir	nt: Outfall Water
Tritium	EPA 906.0	84.2 +/- 174	294	pCi/L

Task ID: 13-0889

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

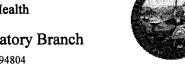
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SA	AMPLE ANALYSIS (Rad		
Drinking Water and Radiation Laboratory Branch	Date Re		Lab No. (Leave Blank)
850 Marina Bay Parkway, G164	10-6	22-13	13+0689
Richmond, CA 94804 510-620-2911		-0745	R 94014
Collector Information	Reporting Inform	nation	
Name: Tour Hook	Name:	and the second s	
Dept./Branch: PO. Box 5%	Dept./Branch:		
Dept./Branch: P.O. BOX 5% Address: AVILA BEACH, CA 93424	Address.		
Telephone No. (805) 545 - 4409	Telephone No.:		
Sample Information	Billing Agency	7)	
System Name / Facility: DCAP DOTTAGE	DWFOB()		RWQCB() DTSC DWR DCDFG
Sampling Point (s):	D DWTPB	☐ FDB ☐ D ☐ Other (Speci	
System No.:	□ EMB	U Other (Speci	лу)
TYPE OF SAMPLE (Check all applicable boxes)		Way Say	
☐ Drinking Water ☐ Groundwater	☐ Surface Water		1 Wastewater
☐ Raw ☐ Water Treatment Plant	t (WTP) 🔲 Distribution Sy	/stem 🗆	Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorinated / Chl	rine Dioxide / Ozonated / Pe	eroxizone / Fluorid	ated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater		Sludge (Semi-solid Samples)
Finishing:	□ Milk		☐ Soil/Sediment
그 물에 하는 이 경우를 가는 것이 되었다.	.☐ Wipes	Ţ	Biota (Type):
Starting:	Radon Caniste	~	Other: 7471 VM SAMPLE
Net (M³)	Nauvii Camero	21. / -	- Outon
☐ Air Charcoal Cartridge			
COMMENTS: (Cautions, etc.):	water bury	de Arriva	
☐ Field Treatment: Preservatives added:	TRANSPORT OF THE PROPERTY OF T	Oth	er:
☐ Field Measurement:mR/hr		(s), if known:	<u>o yaktan elem bed</u> ombak
Rush/Priority (should be prearranged and have supervise			
	154v		***
ANALYSIS REQUESTED (For questions, please call 510-6	and the second s		
	ross Beta	Gamma Sc	
9.47	otal Beta (LSC)	☐ NORM (Ga	
☐ Total Radium	ritium (³ H)	•	nericium / Curium
Radium-226	arbon-14	☐ Isotopic Plu	
	odine-131	☐ Isotopic Th	orium
en italian mes	trontium-89, 90	☐ Isotopic Ura	
— 1\u00112==	lickel-63	☐ Iron-55	
CHAIN OF CUSTODY			, ,
1. 1021/13 Tom Hook		. 1	10/21/23
Date Name (Print)			Date/7/5
Time Custody Received Organization	Signature	7~,~	Time Custody Released
Time Custody Received Organization 2.			
Date Name (Print)			Date
Time Custody Received Organization	Signature		Time Custody Released
Time Custody Received Organization 3.			
Nama (Print)		onall all	Date
Time Custody Received Organization	Signature	Brew Vy, w	Time Custody Released
Time Custody Received Organization			
LABORATORY REMARKS (Leave Blank)	Out wether		
A. Condition at Time of Receipt:	□ Leaked in Tra	ansit	☐ Improper Container
			AND PROPERTY AND INCOME. THE PROPERTY OF THE P
☐ Holding Time Exceeded ☐ Sample Not Coole	ed 💢 🔲 į Insufficient S	ample	
☐ Holding Time Exceeded ☐ Sample Not Coole B. Preservatives/Carriers:	nd 🔲 Insufficient S	ample	



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0683

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

95814-5006

Phone Number: 805-545-4409

Sacramento

CA

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / September 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 9/10/2013

Result +/- CE Units Parameter Method MDA 95 Sampling Point: Outfall Water R 96389 Time Collected: 9/9/2013 07:40 Lab No: 13-0683-01 Sample ID: Sample Type: Seawater EPA 901.1 79.6 pCi/L K-40 345 +/- 22.0

Task ID: 13-0683 Page 1 of 1

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FUR SAMPL		nicai)	
850 Marina Bay Parkway,	ation Laboratory Branch	Date Received		Lab No. (Leave Blank)
Richmond, CA 94804		Pate & Time Sample	here in the	Serial Number
510-620-2911		19/9/13 074	10	R 96389
Collector Information		Reporting Information		
Name: 1624		Name: Dept./Branch:		
Dept./Branch: Roman Address: Attitude 6	SLACH, ON 93424	Address:		
Telephone No.: つという	45-4409	Telephone No.:		
Sample Information System Name / Facility:	DI ABLO CANTON DUNGILL	Billing Agency		
Sampling Point (s):		DWFOB() RI		VQCB() DTSC
	~ 007			VR □ CDFG
System No.:		<u> </u>		/
TYPE OF SAMPLE (Check				
☐ Drinking Water ☐ Raw	GroundwaterWater Treatment Plant (WTP)	Surface Water Distribution System		Wastewater Point of Use (POU)
	hlorinated / Chloraminated / Chlorine Did			
Air Filters	Date/Time	Seawater		Sludge (Semi-solid Samples)
Finishing:		Milk		Soil/Sediment
Starting:		☐ Wipes		Biota (Type):
Net (M³)		☐ Radon Canister		Other:
Air Charcoal Cartridge				
COMMENTS: (Cautions, e	tc.):			
☐ Field Treatment: Pres	servatives added:	ced/Frozen:	Other	
☐ Field Measurement:	mR/hr	Radionuclide(s), if kno		
☐ Rush/Priority (should be	prearranged and have supervisory app			
ANALYSIS REQUESTED (For questions, please call 510-620-2911	1)**		
☐ Gross Alpha	☐ Gross Be		amma Scan	
☐ Total Uranium	☐ Total Beta		ORM (Gamr	
☐ Total Radium	☐ Tritium (³k		· ·	icium / Curium
☐ Radium-226	☐ Carbon-1		otopic Pluto	
☐ Radium-228	lodine-13	1. P. T.	otopic Thori	
☐ Radon-222	☐ Strontium		otopic Urani	
Other (Specify);	Nickel-63	and the second of the second o	on-55	
CHAIN OF CUSTODY				9/2/12
1. 9/9/13 Date	Name (Print)			9/9/13 Date 17.00
<u> </u>	PG:E	- Hradand	-	1700
Time Custody Received 2.	Organization	Signature		Time Custody Released
Date	Name (Print)		•	Date
Time Custody Received	Organization	Signature		Time Custody Released
3. Date 1-10-13	Name (Print)	· · · · · · · · · · · · · · · · · · ·		Date
IA·U5	Duple	Juliane	111 Q1	Date
Time Custody Received	Organization	Signature Common	1 40 - 04	Time Custody Released
LABORATORY REMARKS	(Leave Blank)			
 A. Condition at Time of Rec D. Acceptable 	eipt: Broken Container	☐ Leaked in Transit		☐ Improper Container
☐ Holding Time Exceed		☐ Insufficient Sample		☐ Improper Container
B. Preservatives/Carriers:		, e		
☐ Added While Samplin	g	☐ Not Added		☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0684

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

Sacramento

95814-5006 CA

Phone Number: 805-545-6481

Sample Type: Seawater

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / September 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 9/10/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0684-01

Sample ID:

R 96390

Time Collected: 9/9/2013

07:40

Sampling Point: Outfall Water

Tritium

EPA 906.0

-50.5 +/- 159

274

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	the state of the s	ALMOTOL LOW OVINLE	ANALYSIS (Radio	ocnemical)	
850 Marina Bay		tory Branch	9-10-	ived 3	Lab No. (Leave Blank)
Richmond, CA 9 510-620-2911	14804		9/9/13 C	Sampled 740	Serial Number R 96390
Dept./Branca: /)	Trainen	93424 ***********************************	Reporting Informa Name Dept/Branch: Address:	tion	
Telephone No.:	805-545-64	181	Telephone No.:		
Sample Informa System Name / F Sampling Point (System No.:		Canyon Outball	☐ DWTPB	RHB RV FDB DV Other (Specify	
TYPE OF SAMPI	LE (Check all applicable	e boxes)			·
☐ Drinking Wate ☐ Raw ☐ Treated (circle	□ Wa	oundwater ater Treatment Plant (WTP) hloraminated / Chlorine Diox	_	em 🔲	Wastewater Point of Use (POU) ed / Coagulated / pH Adjusted
☐ Air Filters		Date/Time	☐ Seawater		Sludge (Semi-solid Samples)
Finishing:		- 1 *	☐ Milk	" □	Soil/Sediment
Starting:			☐ Wipes		Biota (Type):
Net (M³)			☐ Radon Canister	X Q	Other: Trifium Sample
Air Charcoal C	Cartridge				
	autions, etc.): <u>4</u> nt: Preservatives add ement:	ded	Iced/Frozen: Radionuclide(s),	Other	
☐ Rush/Priority ((should be prearranged	and have supervisory appro			
		and have supervisory appro	oval)		
			oval)	☐ Gamma Scan	
ANALYSIS REQU	JESTED (For questions	s, please call 510-620-2911	oval)		
ANALYSIS REQU Gross Alpha Total Uranium Total Radium	JESTED (For questions	s, please call 510-620-2911) Gross Beta Total Beta Tritium (³H	oval) (LSC)	☐ Gamma Scan	na)
ANALYSIS REQU Gross Alpha Total Uranium Total Radium Radium-226	JESTED (For questions	Gross Beta Total Beta Tritium (³H	oval) (LSC)	☐ Gamma Scan ☐ NORM (Gami ☐ Isotopic Amer ☐ Isotopic Pluto	na) icium / Curium nium
ANALYSIS REQU ☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228	JESTED (For questions	Gross Beta Total Beta Tritium (³H Carbon-14	oval) I (LSC)	□ Gamma Scan □ NORM (Gami □ Isotopic Amer □ Isotopic Pluto □ Isotopic Thori	na) icium / Curium nium um
ANALYSIS REQU ☐ Gross Alpha ☐ Total Uranium ☐ Total Radium ☐ Radium-226 ☐ Radium-228 ☐ Radon-222	JESTED (For questions	Gross Beta Total Beta Tritium (³H Carbon-14 Codine-131 Strontium-	oval) I (LSC)	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	na) icium / Curium nium um
ANALYSIS REQU Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify	UESTED (For questions	Gross Beta Gross Beta Total Beta Tritium (³H Carbon-14 I lodine-131 Strontium-i	oval) I (LSC)	□ Gamma Scan □ NORM (Gami □ Isotopic Amer □ Isotopic Pluto □ Isotopic Thori	na) icium / Curium nium um
ANALYSIS REQUESTION ANALYSIS REQUESTION Gross Alpha Total Uranium Radium-226 Radium-228 Radon-222 Other (Specify) CHAIN OF CUST 1. Date Time Custody F	ODY Name (Print) Received Organization	Gross Beta Gross Beta Total Beta Tritium (³H) Garbon-14 Godine-131 Strontium- Nickel-63	oval) I (LSC)	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	ma) icium / Curium nium um um Para 1700 Time Custody Released
ANALYSIS REQUESTION Gross Alpha Total Uranium Radium-226 Radium-228 Radon-222 Other (Specify CHAIN OF CUST 1. Date Time Custody F 2. Date	ODY Name (Print) Name (Print)	Gross Beta Gross Beta Total Beta Tritium (³H) Garbon-14 Godine-131 Strontium- Nickel-63	(LSC) 39, 90	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	ma) icium / Curium nium um um Time Custody Released Date
ANALYSIS REQUESTION ANALYSIS REQUESTS Gross Alpha Total Uranium Radium-226 Radium-228 Radon-222 Other (Specify) CHAIN OF CUST Time Custody F 3.	ODY Name (Print) Received Organization Received Organization	Gross Beta Gross Beta Total Beta Tritium (³H) Garbon-14 Godine-131 Strontium- Nickel-63	oval) (LSC) (39, 90	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	nicium / Curium nium um 9/9/13 Date 1700 Time Custody Released Date Time Custody Released
ANALYSIS REQUESTION ANALYSIS REQUESTS Gross Alpha Total Uranium Radium-226 Radium-228 Radon-222 Other (Specify) CHAIN OF CUST Time Custody F 2. Date Time Custody F 3.	ODY Name (Print) Received Organization Name (Print) Received Organization Name (Print)	Gross Beta Gross Beta Total Beta Tritium (³H Grosn-14 Godine-131 Strontium- Nickel-63 Treinen DG \$F	Signature	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	nicium / Curium nium um um
ANALYSIS REQUESTION ANALYSIS REQUESTION Gross Alpha Total Uranium Radium-226 Radium-228 Radon-222 Other (Specify CHAIN OF CUSTO Time Custody F 3. Date Time Custody F Time Custody F	ODY A D Name (Print) Received Organization Name (Print) Received Organization Name (Print) Organization Organization Organization Organization Organization	Gross Beta Gross Beta Total Beta Tritium (³H Garbon-14 Godine-131 Strontium-1 Nickel-63 Treinen DG #F	(LSC) 39, 90	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani	nicium / Curium nium um 9/9/13 Date 1700 Time Custody Released Date Time Custody Released
ANALYSIS REQUIDED TO STATE OF THE CUSTODY FOR	ODY Name (Print) Received Organization EMARKS (Leave Blank Ime of Receipt:	Gross Beta Gross Beta Total Beta Tritium (³H) Garbon-14 Godine-131 Strontium-1 Nickel-63	Signature	Gamma Scan NORM (Gami Isotopic Amer Isotopic Pluto Isotopic Thori Isotopic Urani Iron-55	nicium / Curium nium um um



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0664

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Samples Received by Lab: 9/5/2013

Site/Project Name: Diablo Canyon NPP / September 2013

Billing Agency: RHB

Parameter

System No:

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0664-01

Sample ID:

R 95987

Time Collected: 9/4/2013

09:25

Sampling Point: Bio Lab Sink

Sample Type: Drinking Water

K-40

EPA 901.1

-10.8 +/- 16.0

75.7

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	KEQUEST FUR SAMPLE	ANAL 1313 (Nau		
Drinking Water and Radiation Labo 850 Marina Bay Parkway, G164	ratory Branch	Date Rec 9-5-		Lab No. (Leave Blank) 13-0664
Richmond, CA 94804		/ Date & Time		Serial Number
510-620-2911		9/4/13	0925	R 95987
Collector Information		Reporting Informa	ation	
Name: Tou Hook Dept./Branch: P.O. Boy Sto Address: AUN BLACKS CA		Name:		
Dept./Branch: P.J. Box 57	193424	Dept./Branch: Address:		
Address: AND BEACH, CA		Address.		
Telephone No. (305) 545- 44	09	Telephone No.:		
Sample Information 🤛 👝 🖊	_	Billing Agency		ST DEC
System Name / Facility: Supplied Colors Sampling Point (s):		DWFOB()	RHB RWQC	
∂w_1		DWTPB EMB	Other (Specify)	
System No.:	·	G EMO	Ctrici (Opcony)	
TYPE OF SAMPLE (Check all applica				
Drinking Water	Groundwater	Surface Water		stewater nt of Use (POU)
	Water Treatment Plant (WTP)			· · · · · · · · · · · · · · · · · · ·
Treated (circle one): Chlorinated	Chloraminated / Chlorine Diox	dde / Ozonated / Pe	roxizone / Fluondated /	Coagulated / pri Adjusted
Air Filters	Date/Time	☐ Seawater	☐ Slu	dge (Semi-solid Samples)
Finishing:	·	☐ Milk	☐ Soi	/Sediment
Starting:	<u> </u>	☐ Wipes	☐ Bio	ta (Type):
Net (M³)		Radon Canister	Oth	er:
Air Charcoal Cartridge		¥	•	v ₂ .
				· · · · · · · · · · · · · · · · · · ·
COMMENTS: (Cautions, etc.):		loed/Frozen:		The second secon
J, Field Treatment: Preservatives		***		
Field Measurement:		№ /	s), if known:	
Rush/Priority (should be prearrang	jed and have supervisory appr	oval)		
ANALYSIS REQUESTED (For questi	ons, please call 510-620-2911)		
☐ Gross Alpha	☐ Gross Bet	a	Gamma Scan	
☐ Total Uranium	☐ Total Beta	(LSC)	NORM (Gamma)	
☐ Total Radium	☐ Tritium (³H	ł),	☐ Isotopic Americiu	m / Curium
☐ Radium-226	☐ Carbon-14		☐ Isotopic Plutoniu	m · · · · ·
☐ Radium-228	☐ lodine-131	<u> </u>	☐ Isotopic Thorium	
☐ Radon-222	☐ Strontium-		☐ Isotopic Uranium	
Other (Specify);	☐ Nickel-63	- 374* - 377 - 37	☐ Iron-55	
CHAIN OF GUSTODY		- C		0/.1.2
1. 9/4/13 /02	1 HOOK		y a samuel and a s	9/4/13
Date 0925 Name (P	rint		1	Date 1630
Time Custody Received Organiza	ition	Signature		Time Custody Released
<u> </u>		wike the second of		Date
Date Name (P	rint)			
Time Custody Received Organiza	tion	Signature		Time Custody Released
3. 9-5-13 Name (P	rint)	10		Date
14:00	DURIB		Jone II all	
Time Custody Received Organiza	tion	Signature		Time Custody Released
ABORATORY REMARKS (Leave B	llank)	60.01 N	IR/HK	
A. Condition at Time of Receipt:				Improper Container
☐ Acceptable ☐ Holding Time Exceeded	☐ Broken Container☐ Sample Not Cooled			пиргоры соптанен
			Taken in the state of the	
B. Preservatives/Carriers:	□ Added in Laboratory	☐ Not Added		Not Applicable



Drinking Water and Radiation Laboratory Branch





FINAL Analysis Results Report for Task ID. 13-0665

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach

93424

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / September 2013

Billing Agency: RHB

Samples Received by Lab: 9/5/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0665-01

Sample ID:

R 95982

Time Collected: 9/4/2013

09:25

Sampling Point: Bio Lab Sink

Sample Type: Drinking Water

Tritium

EPA 906.0

-103 +/- 157

274

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAM	IPLE ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received Q-5-1-2	Lab No. (Leave Blank)
Richmond, CA 94804	Dito & Time Samples	Serial Number
510-620-2911	1-7/4/13 0925	R 95982
Collector Information	Reporting Information	
Name: John Hook	Name: Dept./Branch:	A Commence of the Commence of
Dept./Branch: P.O. BOX 50 Address: AVIA BHACI, CA 93421	Address:	
Telephone No.: (805) 545 - 4409	Telephone No.: Billing Agency	
Sample Information System Name / Facility: 13,0 4AB		RWQCB() DTSC
Sampling Point (s):	4— = *** * ,	DWR CDFG
DWL	☐ EMB ☐ Other (S	pecify)
System No.:		X
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater	☐ Surface Water	☐ Wastewater
Raw Water Treatment Plant (WTP) Distribution System	☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorin	e Dioxide / Ozonated / Peroxizone / Flu	oridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater	☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk	☐ Soil/Sediment
	☐ Wipes	☐ Biota (Type):
Starting:	Radon Canister	Other: MATHER BOTTLE
Net (M³)		
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):	* * * * * * * * * * * * * * * * * * *	A Secretary Control of the Control o
☐ Field Treatment: Preservatives added:		Other:
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
☐ Rush/Priority (should be prearranged and have supervisor	y approval)	
ANALYSIS REQUESTED (For questions, please call 510-620	0-2911)	
☐ Gross Alpha ☐ Gross	ss Betal Gamma	
- 1000 012110111	al Beta (LSC)	
- Colai Madiani		: Americium / Curium
— 1.000m ===		Plutonium
□ Radium-228 □ Iodii		Thorium
— · · · · · · · · · · · · · · · · · · ·	entium-89, 90 🔲 Isotopio	
Other (Specify): Nick	rel-63	
1. 9/4/13 Tom HOOK		9/4/13
1. 9/4/15\ /014/77002 Name (Pript)		Date 1/3A
_ 6925 Pack	Signature	Time Custody Released
Time Custedy Received Organization 2.		
Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
Date Name (Print)	Ditworll-	AL - Date
Time Custody Received Organization	Signature Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	,* -9-	
☐ Acceptable ☐ Broken Container ☐ Holding Time Exceeded ☐ Sample Not Cooled	□ Leaked in Transit □ Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers:	S No. Addison	☐ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0666

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach

CA

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / September 2013 System No:

Billing Agency: RHB

Samples Received by Lab: 9/5/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0666-01

Sample ID: Sample Type: Surface Water

Time Collected: 9/4/2013 R 96388

09:12

Sampling Point: Diablo Creek

K-40

EPA 901.1

24.1 +/- 12.4

56.9

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	表示: 18 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804	Pate Received 9-5-12 7 Date & Time Sampled	Lab No. (Leave Blank) 13-06696 Serial Number
510-620-2911	9/4/13 09/2	R 96388
	Reporting Information Name: Dept./Branch: Address:	
Telephone No.: (805) 545-4409	Felephone No.:	
Sample Information System Name / Facility: D/ABW GNSAL Sampling Point (a):	Billing Agency DWFOB() RHB RWQ DWTPB FDB DWR CEMB Other (Specify)	☐ CDFG
TYPE OF SAMPLE (Check all applicable boxes)		
	Distribution System Po	estewater int of Use (POU) / Coagulated / pH Adjusted
Finishing.		dge (Semi-solid Samples) il/Sediment
		ita (Type):
est exist e trade de la companya de	☐ Radon Canister ☐ Oth	
☐ Air Charcoal Cartridge		· · · · · · · · · · · · · · · · · · ·
□ Field Measurement:mR/hr □ Rush/Priority (should be prearranged and have supervisory appro		
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
☐ Gross Alpha ☐ Gross Beta	54	
☐ Total Uranium ☐ Total Beta (☐ Total Radium ☐ Tritium (³H)		
☐ Radium-226 ☐ Carbon-14		y ⇒ ,
☐ Radium-228 ☐ lodine-131		•
☐ Radon-222 ☐ Strontium-8	1	
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY 1. 9/4/13 Torn Hook Name (Print)		9/4/13 Date 41.35
Time Custody Received Organization	Signature	Time Custody Released
2. Date Name (Print)		Date
Time Custody Received Organization 3. 9-5-13	Signature	Time Custody Released
Date 14:00 Name (Print) DWRLB	191	Date
	Signature Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: Acceptable	Leaked in Transit	Improper Container
B. Preservatives/Carriers: Added While Sampling	. D Not Added	Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0667

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / September 2013

CA

System No:

Billing Agency: RHB

Samples Received by Lab: 9/5/2013

Task ID: 13-0667

Parameter Result +/- CE Method **MDA** 95 Units Lab No: 13-0667-01 R 95983 Time Collected: 9/4/2013 Sample ID: 09:12 Sampling Point: Diablo Creek Sample Type: Surface Water **Tritium** EPA 906.0 -82.1 +/- 158 274 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

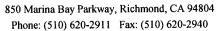
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	FOR SAMPLE ANALYSIS (Ra		
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804	Date R	leceived	13-006 43
510-620-2911	9/4/13	ne Sampled // 4/2	R 95983
Collector Information	Reporting Inform	011	
Name: Ton Hook Dept./Branch: 22 2 2 56	Name:		
Address: Avid BEACH, CA 93424	Dept./Branch:		
Telephone No.: (805) 545 - 4409	Telephone No.	··	
Sample Information System Name / Facility: DIABW GUSGL	Billing Agency		
Sampling Point (s):	DWFOB()	RHB R	WQCB() DTSC
552	EMB	Other (Specif	
System No.:			
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater	☐ Surface Water	-	1 tålansammann
	☐ Surface Water nt Plant (WTP) ☐ Distribution Sy		Wastewater Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated	• •		` ,
☐ Air Filters Date/Tim		* 1	Sludge (Semi-solid Samples)
Finishing:	ie Seawater Milk	1.0	Soil/Sediment
Starting:	Wipes		
Net (M ³)	vvipes		Biota (Type):
□ Air Charcoal Cartridge	Raduil Camsic	ىبىر ∍۲	Other: /////////////////////////////
- All Ollarogal Cartridge			
COMMENTS: (Cautions, etc.):			<u>,</u>
☐ Field Treatment: Preservatives added:	lced/Frozen:		er:
☐ Field Measurement:n	1	(s), if known:	
Rush/Priority (should be prearranged and have su	ipervisory approval)		
ANALYSIS REQUESTED (For questions, please call	510-620-2911)		es -
☐ Gross Alpha	☐ Gross Beta	☐ Gamma Sca	iù
☐ Total Uranium	☐ Total Beta (LSC)	□ NORM (Gam	nma)
☐ Total Radium	Tritium (3H)	☐ Isotopic Ame	ericium / Curium
☐ Radium-226	☐ Carbon-14	☐ Isotopic Plut	onium
☐ Radium-228	☐ lodine-131	☐ Isotopic Tho	rium 1
☐ Radon-222	☐ Strontium-89, 90	☐ Isotopic Urar	nium
Other (Specify);	☐ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY	and the state of t	· · · · ·	- 0/1/12
1. 9/4/13 /07/1/00/L Date 04/13 Name (Print)			7/4/15 Date
0912 PBSK	1 - Toront	ml_	
Time Custody Received Organization 2.	t 6igy/ature		Time Custody Released
Date Name (Print)			Date
Time Custody Received Organization 3.	Signature		Time Custody Released
Date Name (Print)		- NB ()	Date
<u>KI:170</u> DUI		oray Ch	
Time Custody Received Organization	Signature		Time Custody Released
			The state of the s
A. Condition at Time of Receipt:			
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: Acceptable Broken Condition Holding Time Exceeded Sample Not B. Preservatives/Carriers:			☐ Improper Container



Drinking Water and Radiation Laboratory Branch





FINAL Analysis Results Report for Task ID. 13-0630

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

CA Avila Beach

95814-5006

Phone Number: 805-545-6481

CA Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / August 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 8/20/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0630-01	Sample ID: R 95986 Sample Type: Seawater	Time Collected: 8/19/2013	07:30 Sampling Poin	t: Outfall Water
K-40	EPA 901.1	378 +/- 17.9	58.6	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

KEQUEST FOR SAMILE	Date Received	ab No. (Leave Blank)
Drinking Water and Radiation Laboratory Branch		13-0630
50 Marina Bay Parkway, G164 Richmond, CA 94804	, Date & Time Sampled	Serial Number
10-620-2911	8/19/13 0730	R 95986
ollector Information	Reporting Information	
ame: Rich Treinen	Name:	
ent /Rranch: DO ISAV CA	Dept./Branch:	£.
ddress: Avila Baach, CA 93424	Address:	
elephone No.: 805-545-6481	Telephone No.:	
ample Information	Billing Agency	-
ystem Name / Facility: DCPPOUTFALL	DWFOB() RHB RWQC	B() ☐ DTSC ☐ CDFG
ampling Point (s):	DWTPB FDB DWR EMB Other (Specify)	
ystem No.: OUI	E Citio (epeany)	
PE OF SAMPLE (Check all applicable boxes)		
Drinking Water		stewater
□ Water Treatment Plant (W1)	P) Distribution System Poi	Conculated / pH Adjusted
Treated (circle one): Chlorinated / Chloraminated / Chlorine D	hoxide / Ozonated / Peroxizone / Fluoridated /	Coagulated / pri Adjusted
Air Filters Date/Time	Seawater 🔲 Slu	dge (Semi-solid Samples)
Finishing:	Milk Soi	/Sediment
Starting:	☐ Wipes ☐ Bio	a (Type):
Net (M ³)	Radon Canister Oth	er:
Air Charcoal Cartridge		
OMMENTS: (Cautions, etc.):		The state of the s
Field Treatment: Preservatives added:	lced/Frozen:Other: _	
Field Measurement:mR/hr	Radionuclide(s), if known:	
Rush/Priority (should be prearranged and have supervisory ap	oproval)	
NALYSIS REQUESTED (For questions, please call 510-620-29	911)	
☐ Gross Alpha ☐ Gross E		
Total Uranium Total Be	eta (LSC) NORM (Gamma)	
Total Radium Tritium		ım / Curium
Radium-226		
1 (Addition 240		
7 1/40011 ZZZ	***************************************	
		1.6.2
HAIN OF CUSTODY Rick Treinen	1010	8/19/13
Date Name (Print)		Date 1630
Time Custody Received Organization	Signature	Time Custody Released
Time Custody Received Organization		
Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
X-20-13 VA		Date
Date Name (Print) DWRLB	Mytorio Mille	Date
Time Custody Received Organization	Signature	Time Custody Released
STORY OF THE STORY		
_ABORATORY REMARKS (Leave Blank) (A. Condition at Time of Receipt:	DOI MRIHR	
☐ Acceptable ☐ Broken Container	Leaked in Transit	Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample	
. Preservatives/Carriers:	☐ Not Added 🦿 🖵	Not Applicable
Added While Sampling	u not Added	



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0631

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / August 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 8/20/2013

Parameter

Tritium

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0631-01

Time Collected: 8/19/2013 07:30

Sampling Point: Outfall Water

R 92259 Sample ID:

Sample Type: Seawater

EPA 906.0

-154 +/- 156

274

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE			
Sanitation and Radiation Laboratories Branch	Date R	eceived	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	4-	20-13	1 0-0631
510-620-2911		e Sampléd	Serial Number
	8/19/13	0730	R 92259
Collector Information	Reporting Inform	nation	
Name: Ton Hook	Name:		
Dept,/Branch: P.O. Bix 56 Address: AVILA BEACH, CA 93424	Dept./Branch: Address:		
AVILA BEACH, CA 17964			
Telephone No.: (805) 545-4409	elephone No.:		
Sample Information System Name / Facility: DCPP DVTFALL	Billing Agency	A	
System Name / Facility: DCPP 001 PY+CC Sampling Point (s):	DWFOB()		RWQCB() DTSC
DUT	EMB	Other (Spe	DWR CDFG
System No.:		— Culoi (Opc	
YPE OF SAMPLE (Check all applicable boxes)			
Drinking Water Groundwater	Surface Water		☐ Wastewater
Raw Water Treatment Plant (WTP			☐ Point of Use (POU)
1 Treated (circle one): Chlorinated / Chloraminated / Chlorine Di	oxide / Ozonated / P	eroxizone / Fluo	ridated / Coagulated / pH Adjuste
Air Filters Date/Time	Seawater		☐ Sludge (Semi-solid Samples)
Finishing:	Milk		☐ Soil/Sediment
Starting:	Wipes		☐ Biota (Type):
Net (M³)	Radon Caniste)r	Other:
Air Charcoal Cartridge		•	G Other.
COMMENTS: (Cautions, etc.):			to the same to
Field Treatment: Preservatives added:			ther:
Prield Measurement:mR/hr	Radionuclide(s		ther:
Prield Measurement:mR/hr	Radionuclide(s		
Prield Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app	Radionuclide(s		
Pield Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291	Radionuclide(s proval) 1)	s), if known:	
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha Gross Be	Radionuclide(s proval) 1)	s), if known:	can
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) : eta : a (ESC)	S), if known: ☐ Gamma S ☐ NORM (G	can amma)
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) eta a (ESC) H)	Gamma S NORM (G	can amma) mericium / Curium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) ta a (ESC) H)	Gamma S NORM (G I sotopic A	can amma) mericium / Curium lutonium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) eta a (ESC) H)	Gamma S NORM (G Isotopic A Isotopic P	can amma) mericium / Curium lutonium horium
Pield Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory supervisory approximately supervisory supervisory supervisory supervisory supervisory supervisory supervisory supervisory supervisory supe	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory applications) Requirements MALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha Gross Bet Total Uranium Total Bet Tritium (3 Radium-226 Carbon-1 Radium-228 Italiam-13 Radon-222 Strontium Other (Specify); Nickel-63	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic P	can amma) mericium / Curium lutonium horium ranium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory supervisory approximately supervisory approximately supe	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app. NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory app NALYSIS REQUESTED (For questions, please call 510-620-291 Gross Alpha	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date 1630
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory supervisory approximately supervisory supervisory supervisory supervisory supervisory supervisory supervisory supervisory supervisory	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory app	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date 1630
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory app	Radionuclide(s proval) 1) ta a (ESC) H) 4 11 n-89, 90	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date /630 Tene Custody Released Date
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately presented by the color of t	Radionuclide(s proval) 1) eta a (ESC) H) 4	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date /630 Time Custody Released Date Time Custody Released
Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory approximately supervisory app	Radionuclide(s proval) 1) ta a (ESC) H) 4 11 n-89, 90	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date /630 Tane Custody Released Date
Field Measurement:	Radionuclide(soroval) 1) eta a (ESC) H) 4 11 n-89, 90 Signature	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium S/19/13 Date /630 Time Custody Released Date Time Custody Released
Field Measurement:	Radionuclide(soroval) 1) ta a (ESC) H) 4 1-89, 90 Signature	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium S/19/13 Date /630 Time Custody Released Date Time Custody Released
Field Measurement:	Radionuclide(soroval) 1) ta a (ESC) H) 4 1-89, 90 Signature	Gamma S NORM (G Isotopic A Isotopic T Isotopic U	can amma) mericium / Curium lutonium horium ranium S/19/13 Date /630 Time Custody Released Date Time Custody Released
Field Measurement:	Radionuclide(soroval) 1) ta a (ESC) H) 4 1-89, 90 Signature	Gamma S NORM (G Isotopic A Isotopic P Isotopic T Isotopic U Iron-55	can amma) mericium / Curium lutonium horium ranium 8/19/13 Date /630 Time Custody Released Date Time Custody Released



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0583

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / August 2013

CA

Billing Agency: RHB

Samples Received by Lab: 8/7/2013

Result +/- CE MDA 95 Units Method Parameter Lab No: 13-0583-01 Sample ID: R 95910 Time Collected: 8/6/2013 09:00 Sampling Point: Bio Lab Sink Sample Type: Drinking Water K-40 EPA 901.1 22.4 +/- 12.4 57.0 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	E ANALYSIS (Radiocner	nicai)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received 9-7-13	1 1	ab No (Leave Blank) 3-0583
Richmond, CA 94804 510-620-2911	8/6/13 090		R 95910
Collector Information Name: Rich Treinen Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424	Reporting Information Name: Dept./Branch: Address:		
Telephone No.: 805-545-6481	Telephone No.:		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sample Information System Name / Facility: BIO LAB Sampling Point (s):	DWTPB DF	RHB RWQCE DB DWR Other (Specify)	□ CDFG
System No			
TYPE OF SAMPLE (Check all applicable boxes) ☐ Drinking Water ☐ Raw ☐ Water Treatment Plant (WTF) ☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Di	Surface Water Distribution System ioxide / Ozonated / Peroxizo		of Use (POU)
Air Filters Date/Time	Seawater	☐ Slud	ge (Semi-solid Samples)
3 7 th 1 more	Milk		Sediment
Finishing:	↓ □ Wipes	☐ Biota	(Type):
Starting:	☐ Radon Canister		r:
Net (M³)	Magori Camster		
Air Charcoal Cartridge			
COMMENTS: (Cautions, etc.):	<u> </u>		
Field Treatment: Preservatives added:	[lced/Frozen:	Other:	
Field Measurement:mR/hr	Radionuclide(s), if ki	nown:	
Rush/Priority (should be prearranged and have supervisory ap	proval)		
ANALYSIS REQUESTED (For questions, please call 510-620-29	i i		
☐ Gross B	Mar	Gamma Scan	
☐ Total Uranium ☐ Total Be	eta (LSC)	NORM (Gamma)	
☐ Total Radium ☐ Tritium (Isotopic Americiur	n / Curium
Radium-226	· · · · · · · · · · · · · · · · · · ·	Isotopic Plutoniun)
☐ Radium-228 ☐ Iodine-1	· ·	Isotopic Thorium	
	The state of the s	Isotopic Uranium	
Other (Specify);		Iron-55	
CHAIN OF CUSTODY 1. \$16/13 Date Name (Print)	A DIMO		8/6/13 Date 1630
Time Custody Received Organization	Signature		Time Custody Released
Date Name (Print)		W	Date
Time Custody Received Organization	Signature		Time Custody Released
Date Name (Print)	19.	W.Qli	Date
Time Custody Received Organization	Signature	m eu	Time Custody Released
ABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: Acceptable Broken Container Holding Time Exceeded Sample Not Cooled 3. Preservatives/Carriers:	O.O. (MR/HR Leaked in Transit Insufficient Sample	a	Improper Container
☐ Added While Sampling ☐ Added in Laboratory	□ Not Added		Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0582

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

Sacramento

95814-5006

CA

CA

Phone Number: 805-545-6481

Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / August 2013

Billing Agency: RHB

Samples Received by Lab: 8/7/2013

Parameter	Method	Result +/- CE	M	IDA 95	Units
Lab No: 13-0582-01	Sample ID: R 95914 Sample Type:	Time Collected: 8/6/2013	09:00	Sampling Point:	Bio Lab Sink
Tritium	EPA 906.0	-91.3 +/- 168		292	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

		ANALYSIS (Radiochemic	aı) .	arant v outra / sampatonets , v pro-u syntanticum a
Drinking Water and Radiation Laborato	ry Branch	Date Received		ab No. (Leave Blank) 3 - 05 82 **
850 Marina Bay Parkway, G164 Richmond, CA 94804		# Date & Time Sampled		Serial Number
510-620-2911		8/6/13 0900		R 95914
Collector Information		Reporting Information		
Collector Information Name: Rick Trainen		Name: Dept./Branch:		
Dept./Branch: PO Box 56	63424	Address:		1
Address: Avila Beach, CA	77721		· # 19	
Telephone No.: 803 - 345-648 (Telephone No.:		
Sample Information System Name / Facility: BIO La Sampling Point (s):	48	D DWTPB D FDB		
System No.:				
TYPE OF SAMPLE (Check all applicable			☐ Wast	owator
Drinking Water Grou	Indwater or Treatment Plant (WTP)	Surface Water Distribution System		of Use (POU)
☐ Raw ☐ Wate	oraminated / Chlorine Dic	oxide / Ozonated / Peroxizone	/ Fluoridated / C	Coagulated / pH Adjusted
Treated (circle one). Chlorinated / Chlo	Statilitated / Othornio Die		Ŷ.	
☐ Air Filters	Date/Time	☐ Seawater		ge (Semi-solid Samples)
Finishing:		☐ Milk		Sediment
Starting:		☑ Wipes	☐ Biota	(Type):
Net (M ³)		Radon Canister	∑ Othe	Tritium Sample
☐ Air Charcoal Cartridge				
COMMENTS: (Cautions, etc.);	ger en jo de angele			Start Bridge
COMMEN (S: (Cautions, etc.))	4.	Ucad/Frozen	Other:	
Field Treatment: Preservatives adde	;0:	D Padionuclide(s) if know		
☐ Field Measurement:				
☐ Rush/Priority (should be prearranged a				
ANALYSIS REQUESTED (For questions,	please call 510-620-291			and the second of the second o
☐ Gross Alpha	☐ Gross Be	• • • • • • • • • • • • • • • • • • • •	mma Scan	
☐ Total Uranium	☐ Total Bet	·= (== -)	RM (Gamma)	
☐ Total Radium	☐ Tritium (³		topic Americiun	6 Company of the Comp
☐ Radium-226	☐ Carbon-1		topic Plutonium	
☐ Radium-228	☐ lodine-13		topic Thorium	
☐ Radon-222	☐ Strontiun	· 53.	topic Uranium	
Other (Specify);	Nickel-63	3 🗘 🔲 Iro	n-55	
CHAIN OF CUSTODY 1. 8/6/13 Pick	Treinen	DND		8/6/13
Date Name (Print)	Deat E	14/1/1/-	• 3	Date 1630
Time Custody Received Organization	PGFL	Signature		Time Custody Released
2.	*			Date
		Signature		Time Custody Released
Time Custody Received Organization	11Δ	Signature		Timo Gastady Tieleason
Date Name (Print)	06.0	19/10/1	7/.	Date
Time Custody Received Organization	DWRLB	Signature Signature	<u>u</u>	Time Custody Released
Time Custody Received Organization				
LABORATORY REMARKS (Leave Blank	0			
A. Condition at Time of Receipt: Acceptable Holding Time Exceeded	Broken Container Sample Not Cooled	☐ Leaked in Transit☐ Insufficient Sample		Improper Container *
B. Preservatives/Carriers: Added While Sampling	Added in Laboratory	, □ Not Added	a a	Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0580

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Avila Beach

93424

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / August 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 8/7/2013

Parameter Method Result +/- CE

MDA 95

Units

Lab No: 13-0580-01

Sample ID:

R 95912 Time Collected: 8/6/2013 08:40

Sampling Point: Diablo Creek

Sample Type: Surface Water

K-40

EPA 901.1

57.4 +/- 13.1

58.3

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	PLE ANALYSIS (Radiochemical)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richard CA 948Q4	9-7-13 /13-0547 , Date & Time Sampled Serial Number
510-620-2911	86/13 0840 R 95912
Collector Information Name: Rick Treinen Dept./Branch: Po Box 56 Address: Avila Beach, CA 93424	Reporting Information Name: Dept./Branch: Address:
Telephone No.: 805 - 545 - 6481	Telephone No.:
Sample Information System Name / Facility: Sampling Point (s): DIABLO CREEK	Billing Agency DWFOB() RHB RWQCB() DTSC DWTPB DFDB DWR CDFG EMB Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater Water Treatment Plant (W Treated (circle one): Chlorinated / Chloraminated / Chlorine	Surface Water (TP) Distribution System Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☑ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk ☐ Soil/Sediment
Starting:	☐ Wipes ☐ Biota (Type):
Net (M ³)	Radon Canister Other:
☐ Air Charcoal Cartridge	Tradori odnistei
All Ollarcoal Cartiloge	
COMMENTS: (Cautions, etc.):	
☐ Field Treatment: Preservatives added:	Ced/Frozen: Other:
☐ Field Measurement:mR/hr	Radionuclide(s), if known:
☐ Rush/Priority (should be prearranged and have supervisory a	approval)
ANALYSIS REQUESTED (For questions, please call 510-620-2	2911)
☐ Gross Alpha ☐ Gross	and in the contract of the con
	Beta (LSC)
☐ Total Radium ☐ Tritium	
□ n-di 200	
☐ Radium-228 ☐ Iodine	
	tium-89, 90
U Other (Specify); U Nickel	
	I-63 Iron-55
CHAIN OF CUSTODY 1. \$\frac{\\$/6/13}{\}\] Date \(\frac{\\$/6}{\}/2 \) Time Custody Received \(\frac{\\$/2}{\}\) Organization \(\frac{\\$/2}{\}\)	Signature Signature Signa
Date Name (Print)	Date
Time Custody Received Organization	Signature Time Custody Released
3. S-13-13 Name (Print)	Date
11:00 DURIB	- Culous M. All
Time Custody Received Organization	Signature Time Custody Released
LABORATORY REMARKS (Léave Blank) A. Condition at Time of Receipt: Acceptable	Leaked in Transit
B. Preservatives/Carriers: ☐ Added While Sampling ☐ Added in Laboratory	□ Not Added □ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0581

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424 CA

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / August 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 8/7/2013

Units Result +/- CE MDA 95 **Parameter** Method Sampling Point: Diablol Creek Time Collected: 8/6/2013 08:40 R 95984 Lab No: 13-0581-01 Sample ID: Sample Type: Surface Water 19.1 +/- 155 265 pCi/L EPA 906.0 **Tritium**

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Prinking Water and B. II is in REQUEST FOR SAMPI	LE ANALYSIS (Radiochemical)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	
Richmond, CA 94804	S-7-/3 Lab No. (Leave Blank)
510-620-2911	Date & Time Sampled Serial Number
Collector Information	8/6/13 0840 R 95984
Name D. T.	Reporting Information
Dept./Branch: OO Bay 6/	Name:
Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424	Dept./Branch:
Tolonborn No. GOC CAC (AC)	Address:
Telephone No.: 805-545-6481	Telephone No.:
System Name / Facility: 10 / A D / A - C	Billing Agency
System Name / Facility: DIABLO CREEK Sampling Point (s):	D DWFOR() D DUD D DWGGG
凝가 보고 있는 사람들은 사람들이 가장 가장 그 사람들이 가장 가장 하는 것이다.	DWTPB DFDB DWP
System No.: 552	EMB Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes)	
Drinking Water	
Water Treatment Diam same	Surface Water
Treated (circle one): Chlorinated / Chloraminated / Chlorine Dio	Point of Use (POU)
☐ Air Filters	Distribution System Point of Use (POU) xide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
Date/Time	
Finishing:	Siddge (Semi-solid Samples)
Starting:	O Wines
Net (M³)	— Biota (Type).
☐ Air Charcoal Cartridge	Radon Canister Other: Tritium Sample
2001117	
COMMENTS: (Cautions, etc.);	
Field Treatment: Preservatives added:	ced/Frozen: Other
*LI Field Measurement.	
Rush/Priority (should be prearranged and have supervisory appro	□ Radionuclide(s), if known:
The state of the s	(VGI)
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	
☐ Gross Alpha ☐ Gross Beta	Gamma Scan
Total Bato	— Carrilla Scari
Tritium /3L1	- North (Gainna)
Radium-226 Carbon-14	a isotopic Affendum / Curium
Radium-228 Indine-131	☐ Isotopic Plutonium
LI Radon-222	☐ Isotopic Thorium
Other (Specify);	9, 90 🔲 Isotopic Uranium
CHAIN OF CUSTODY	☐ Iron-55
	1010
Date Name (Print)	8/6/13
- 0000 VOET	Date
Time Custody Received Organization	Signature 1630
Date Name (Print)	Time Custody Released
· · ·	Date
Time Custody Received Organization	Signature
	Time Custody Released
11'00 realite (Print)	M. Date
Time Custody Received	
With the first the transfer of the control of the c	Time Custody Released
LABORATORY REMARKS (Leave Blank) A: Condition at Time of Receipt:	
☐ Acceptable ☐ Protect Contrib	
Holding Time Exceeded Sample Not Cooled	Leaked in Transit
B. Preservatives/Carriers:	жинови запре
D v Add-dien o -	
Added viville Sampling	Not Added



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0540

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

CA

Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / July 2013 Billing Agency: RHB

Samples Received by Lab: 7/16/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Sampling Point: Outfall Water

Lab No: 13-0540-01

Sample ID: Sample Type: Seawater

R 96026

Time Collected: 7/15/2013 07:38

56.8

pCi/L

K-40

EPA 901.1

352 +/- 17.2

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE			l ah N	o. (Leave Blank)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Rece - 7/16/13		13-05	140
Richmond, CA 94804	Date & Time S			erial Number 96026
510-620-2911	1	0738	1	30020
Collector Information Name: Torn Hook Dept./Branch: P.O. BOX 56 Address: AVILA BEACH, CA 93424	Reporting Informat Name: Dept./Branch: Address:	lion		
Telephone No.: (805) 545 - 4409	Telephone No.:		<u> </u>	
Sample Information System Name / Facility: DIPP DUTFALL Sampling Point (s):	DWTPB	RHB FDB Other (Spe	DWR) DTSC D CDFG
System No.:	4			7/5/;3 07:
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Raw Groundwater Water Treatment Plant (WTP) Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	Surface Water Distribution Systematical / Ozonated / Percentage	em	☐ Wastewa ☐ Point of idated / Coa	ater Use (POU)
D. J. Phys.	⊠ Seawater			Semi-solid Samples)
- All Timers	Milk		☐ Soil/Sed	
Finishing: Starting:	Wipes		☐ Biota (T	ype):
Starting:	Radon Canister		Other: _	
☐ Air Charcoal Cartridge			. *	
		Air		
COMMENTS: (Cautions, etc.):	lced/Frozen:	Ċ	ther:	
☐ Field Treatment: Preservatives added:mR/hr	Radionuclide(s)			
Rush/Priority (should be prearranged and have supervisory appr	*	•		
	1. \$a.			The state of the s
ANALYSIS REQUESTED (For questions, please call 510-620-2911	3 √2	☑ Gamma	Scan	
U Cross Alpha	7-	☐ NORM (
☐ Total Uranium ☐ Total Beta	7.60	☐ Isotopic /	Americium / (Curium
Radium-226 Carbon-1		☐ Isotopic I	Plutonium	
☐ Radium-228 ☐ Iodine-13	1 🖟	☐ Isotopic 1	Thorium	
□ Radon-222 □ Strontium	-89, 90	☐ Isotopic l	Uranium	
Other (Specify): Nickel-63	4	☐ Iron-55		
1. 7 15 13 Ton Hook Name (Print) Name (Print)	Built			7/15/13 ate /700 me Custody Released
Time Custody Received Organization 2.	Signature			ate
Date Name (Print)				me Custody Released
Time Custody Received Organization Organization Name (Print)	Signature	-		ate
Time Custody Received Organization	Signature		Ti	me Custody Released
Holding Time Exceeded Sample Not Cooled B. Preservatives/Carriers:	Leaked in Tran Insufficient Sar			nproper Container
Added While Sampling C. D. Added in Laboratory	□ Not Added		O N	ot Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0541

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Sacramento CA

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / July 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 7/16/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0541-01	Sample ID: R 96036 Sample Type: Seawater	Time Collected: 7/15/2013	07:38 Sampling Poin	t: Outfall Water
Tritium	EPA 906.0	53.5 +/- 172	292	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	MPLE ANALYSIS (Radi		
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Rec	eived	Lab No. (Leave Blank)
Richmond, CA 94804	77/16//3 Date & Time	Compled	13 - 054/ ** Serial Number
510-620-2911	7/15/13	0738	R 96036
Collector Information	Reporting Informa		
Name: Tom Hook	Name:		
Dept./Branch: P.O. Box 5% Address: AVIA BEACH, CA 93424	Dept./Branch:		
(2) - 17/C 1/1/2		and the second	
Telephone No.: (325) SYS-14409	Telephone No.:		<u> </u>
System Name / Facility: DCPP OUTFALL	Billing Agency DWFOB ()	□ RHB □ RV	VQCB() DTSC
Sampling Point (s):	DWTPB	☐ FDB ☐ DV	, ,
System No.:	□ EMB	Other (Specify	
TYPE OF SAMPLE (Check all applicable boxes)			
☐ Drinking Water ☐ Groundwater	Surface Water		Wastewater
☐ Raw ☐ Water Treatment Plant (in the state of th		Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorin	ne Dioxide / Ozonated / Per	oxizone / Fluoridat	ed / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater		Sludge (Semi-solid Samples)
Finishing:	/ Milk		Soil/Sediment
Starting:	☐ Wipes		Biota (Type):
Net (M ³)	Radon Canister	Ø	Other: TRINUM SAMPLE
☐ Air Charcoal Cartridge			· · · · · · · · · · · · · · · · · · ·
COMMENTS: (Cautions, etc.):	715	e ta e sage à see de la fait de la company de la compa	in the common specific and the property of the property of the common specific and the common specific
☐ Field Treatment: Preservatives added:	/ced/Frozen:		
☐ Field Measurement:mR/hr/	AB		
Rush/Priority (should be prearranged and have supervisor			
ANALYSIS REQUESTED (For questions, please call 510-620)-2911)		:
☐ Gross Alpha ☐ Gro	ss Beta	☐ Gamma Scar	.
☐ Total Uranium ☐ Total	nl Beta (LSC)	☐ NORM (Gam	ma)
☐ Total Radium ☐ Triti	um (³ H)	☐ Isotopic Ame	ricium / Curium
☐ Radium-226 ☐ Carl	oon-14	☐ Isotopic Pluto	nium a.
☐ Radium-228 ☐ Iodii	ne-131	☐ Isotopic Thori	um
☐ Radon-222 ☐ Stro	ntium-89, 90	☐ Isotopic Uran	ium
Other (Specify);	el-63	☐ Iron-55	
1. 7/5/13 Ton Hook			7/15/13
Date Name (Print)			Date 1700
0788 PG.F	" Tours	d.	7700
Time Custody Received Organization 2.	2 Signature 1	3	Time Custody Released
Date Name (Print)	The same of the sa		Date
Time Custody Received Organization	Signature		Time Custody Released
3. <u>07/16/13</u> A lan Name (Print)			Date
14:00 DWR/B	Angela	Tan	
Time Custody Received Organization	, Signature		Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	1 1 1 E 1		
☐ Acceptable ☐ Broken Container	□ / Leaked in Trans		☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sam	ple	
B. Preservatives/Carriers: ☐ Added White Sampling ☐ Added in Laboratory	□ Not Added		□ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0530

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

CA 95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Sacramento

Site/Project Name: Diablo Canyon NPP / July 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 7/10/2013

Result +/- CE MDA 95 Units Method **Parameter** Time Collected: 7/9/2013 07:50 Sampling Point: Bio Lab Sink Lab No: 13-0530-01 Sample ID: R 95918 Sample Type: Drinking Water pCi/L 56.4 5.66 +/- 12.0 K-40 EPA 901.1

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMP	LE ANALYSIS (Radioci		
Drinking Water and Radiation Laboratory Branch	Date Receive		Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	7/10/13		8-0530-0/
510-620-2911	7/9/13 - 07	. ~	R 95918
Collector Information	Reporting Information	n n	
Name: Lich Trainen	Name: Dept./Branch:		
Dept./Branch: PO Box 5,6 Address: Avila Beach, CH 93424	Address:		
Telephone No.: 805 - 545-6481	Telephone No.:		
Sample Information System Name / Facility: Sampling Point (s):	DWTPB 🗆	RHB RWQ	☐ CDFG
System No.:	☐ EMB ☐	Other (Specify) _	
TYPE OF SAMPLE (Check all applicable boxes)			* * * * * * * * * * * * * * * * * * *
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WT		n 🗓 Po	astewater bint of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine [Dioxide / Ozonated / Peroxi	zone / Fluoridated	/ Coagulated / pH Adjusted
☐ Air Filters Date/Time	, 🚨 Seawater	u si	udge (Semi-solid Samples)
Finishing:	☐ Milk	□ Sc	oil/Sediment
Starting:	Wipes ■ Wipes	□ Bi	ota (Type):
Net (M ³)	Radon Canister	□ 0t	her:
☐ Air Charcoal Cartridge			
COMMENTS: (Cautions, etc.):	ced/Frozen:	Othor	7.5
☐ Field Treatment: Preservatives added:	7 10 2	7	<u>.</u>
Field Measurement:mR/hr	Radionuclide(s), if	known:	
Rush/Priority (should be prearranged and have supervisory a	pproval)		*
ANALYSIS REQUESTED (For questions, please call 510-620-29	3		
☐ Gross Alpha ☐ Gross I	Beta 4	☑ Gamma Scan	
☐ Total Uranium ☐ Total B	eta (LSC)	NORM (Gamma	a)
☐ Total Radium ☐ Tritium	(³H)	Isotopic Americi	um / Curium
☐ Radium-226 ☐ Carbon	n-14 [Isotopic Plutoniu	um 💮 💮 mu
☐ Radium-228 ☐ Iodine-	131.	Isotopic Thoriun	1
☐ Radon-222 ☐ Strontit	um-89, 90	Isotopic Uraniur	
☐ Other (Specify); ☐ Nickel-	63 E	☐ Iron-55	
CHAIN OF CUSTODY		1	7/1/12
1. 7/9/13 Vice Iscinen Name (Print) Octor			Date
0750 PGER	I/N/n/	2	1700
Time Custody Received Organization 2.	Signature		Time Custody Released
Date Name (Print)	esperience	· · · · · · · · · · · · · · · · · · ·	Date
Time Custody Received Organization 3. 7/10/13	Signature	e de la companya de l	Time Custody Released
Date / Name (Print)			Date
13:30 DWRIB	Angela	Jan	Time Custody Released
Time Custody Received Organization	Signature J		Time Custody Released
LABORATORY REMARKS (Leave Blank)	I M.R/hr.		
A. Condition at Time of Receipt: Acceptable Broken Container	Leaked in Transit		Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample		
B. Preservatives/Carriers:			Not Applicable
☐ Added While Sampling ☐ Added in Laboratory	□ Not Added		I Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0531

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach 93424 Phone Number: 805-545-6481

Sacramento

95814-5006 CA

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / July 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 7/10/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0531-01	Sample ID: R 96046 Sample Type: Drinking Water	Time Collected: 7/9/2013	07:50 Sampling Point	: Bio Lab.
Tritium	EPA 906.0	22.3 +/- 171	292	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FO	OR SAMPLE ANALYSIS (Radio	cnemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Rece		Lab No. (Ceave Blank)
Richmond, CA 94804	, Date & Time S		Serial Number
510-620-2911	7/9/13 - 07		R 96046
Collector Information	Réporting Informat	ion	
Name: Rich Treinen	Mame:		
Dept./Branch: Po Box 56 Address: Avila Beach, CA 93424	Dept./Branch: Address:		
Telephone No.: 805 - 545 - 6481	Telephone No.:		<u> </u>
Sample Information D16 1 12	Billing Agency	□ RHB □ RWQC	B() DTSC
System Name / Facility: 1310 LAB Sampling Point (s):	DWFOB()	☐ RHB ☐ RWQC	CDFG
DW	☐ EMB	☐ FDB ☐ DWR ☐ Other (Specify)	
System No.:		13-50	
TYPE OF SAMPLE (Check all applicable boxes)	☐ Surface Water	∏l Wa	stewater
Drinking Water ☐ Groundwater ☐ Raw ☐ Water Treatmen	t Plant (WTP) Distribution Syste		nt of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated	/ Chlorine Dioxide / Ozonated / Perc	xizone / Fluoridated /	Coagulated / pH Adjusted
☐ Air Filters Date/Time		and the same of th	dge (Semi-solid Samples)
Finishing:	☐ Milk		I/Sediment
	□ Wipes	☐ Bio	ta (Type):
Starting: Net (M ³)	□ Radon Canister	* Oth	ier: Tritium Sampl
☐ Air Charcoal Cartridge			
All Charcoal Cardinge			
COMMENTS: (Cautions, etc.):		<u> </u>	en e
☐ Field Treatment: Preservatives added:			
		, if known:	
☐ Rush/Priority (should be prearranged and have su	pervisory approval)		
ANALYSIS REQUESTED (For questions, please call	510-620-2911)		
☐ Gross Alpha	☐ Gross Beta	☐ Gamma Scan	
☐ Total Uranium	☐ Total Beta (LSC)	☐ NORM (Gamma)	
☐ Total Radium	☐ Tp/fium (³H)	☐ Isotopic Americiu	
☐ Radium-226	☐ Carbon-14	Isotopic Plutoniu	r.
☐ Radium-228	□ lodine-131	☐ Isotopic Thorium	
☐ Radon-222	☐ Strontium-89, 90	Isotopic Uranium	
Other (Specify);	☐ Nickel-63	☐ Iron-55	Xav
CHAIN OF CUSTODY 1 7/9/13 Rich Trein	11	10	7/9/184
1. 7/9//3	To the state of th		Date
0750	t /well	2	<u> 1200</u>
Time Custody Received Organization	⊚⊶ ≰ ignature		Time Custody Released
2. Date Name (Print)		You Me	Date
Time Custody Received Organization	Signature	·	Time Custody Released
3. Pate Name (Print)		'Y	Date
Date Name (Plint)	3 Angela	Ta	*
Time Custody Received Organization	Signature	¥	Time Custody Released
LABORATORY REMARKS (Leave Blank)			
A. Condition at Time of Receipt:	ntainer Line X Leaked in Trans		Improper Container
☐ Acceptable ☐ Broken Cor ☐ Holding Time Exceeded ☐ Sample Not		ple	
B. Preservatives/Carriers:	A) (3)		
☐ Added While Sampling ☐ Added in La	aboratory D Not Added		Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0532

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56 Avila Beach

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

CA

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / July 2013

93424

System No:

Billing Agency: RHB

Samples Received by Lab: 7/10/2013

Parameter	Method	Result +/- CE	N	/IDA 95	Units
Lab No: 13-0532-01	Sample ID: R 96045 Sample Type: Surface Water	Time Collected: 7/9/2013	07:21	Sampling Point:	Diablo Creek
K-40	EPA 901.1	34.8 +/- 12.4		56.3	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radiat 850 Marina Bay Parkway, G	ion Laboratory Branch 164		Date Re		Lab No. (Leave Blank) 13-0532=01
Richmond, CA 94804	and the second s		Date & Time		Serial Number
10-620-2911	·		7/9/13-0		R 96045
ollector Information ame: Lick Treine ept./Branch: PO BOX ddress: Avila Reac	\		eporting Inform ame: ept./Branch: ddress:	ation	
elephone No.: 405-5		A T	elephone No.:		
1 1 6			filling Agency		
ystem Name / Facility: ampling Point (s):	Diablo Creek 552	* -	DWFOB() DWTPB	☐ FDB ☐	RWQCB() DTSC DWR DCDFG cify)
ystem No.:	31/		LIND		
YPE OF SAMPLE (Check	all applicable boxes)	3		a e Sa	ing the state of
Drinking Water Raw	Groundwater Water Treatment	Plant (WTP) *C	Surface WaterDistribution SyOzonated / Pr	stem	☐ Wastewater ☐ Point of Use (POU) dated / Coagulated / pH Adjusted
***************************************	<u> </u>		3 Seawater		Sludge (Semi-solid Samples)
Air Filters	Date/Time	4	3 Milk		Soil/Sediment
Finishing:			Wipes	~~o_,	☐ Biota (Type):
	% T.d.		⊒ vvipes ⊒ Radon Caniste	(1) Ar	Other:
Net (M ³)			1 Radon Camsic	7.	
Air Charcoal Cartridge				:	
	tc.):				<u> </u>
	ervatives added:		3		ther:
Field Measurement:	m	1		(s), it known:	
Rush/Priority (should be	prearranged and have sup	ervisory appre	rai)		
NALYSIS REQUESTED (For questions, please call		Andrews Andrews (1997) Andrews (1997) Andrews (1997)	Gamma S	en de la companya de
Gross Alpha		☐ Gross Beta		☐ NORM (G	
Total Uranium		☐ Total Beta	LSC)	•	mericium / Curium
1 Total Radium		☐ Tritium (³H)		☐ Isotopic F	
Radium-226		☐ Carbon-14		☐ Isotopic T	
Radium-228		lodine-131	0.00	☐ Isotopic l	á
Radon-222		☐ Strontium-8 ☐ Nickel-63	9, 90	☐ Iron-55	, contracti
Other (Specify);		U Nickei-03		2 11011 00	4 . 9 1
CHAIN OF CUSTODY	Name (Print) OCHE	<u> </u>			7/4/13 Date 1700
Time Custody Received	Organization		Signature		Time Custody Released
Date	Name (Print)	a a sa 			Date
Time Custody Received	Organization	-	Signature (*	. 7	Time Custody Released
3. $\frac{7}{10/3}$	Name (Print)			()	Date
Time Custody Received	Organization DWRLB	}	Signature S	la Tan	Time Custody Released
ABORATORY REMARKS Condition at Fine of Re Acceptable Holding Time Excee	eceipt: DINRUS Broken Con	∠ Ø•0	Leaked in Tr		☐ Improper Container
☐ Holding Time Excee 3. Preservatives/Carriers:		A' = A'	Not Added		☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0533

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

Sacramento

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

CA

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / July 2013

uly 2013

Billing Agency: RHB

Samples Received by Lab:

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0533-01	Sample ID: R 95920 Sample Type: Drinking Water	Time Collected: 7/9/2013	07:21 Sampling Point	: Diablo Creek
Tritium	EPA 906.0	-20.0 +/- 170	292	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Prinking Water and Radiation Laboratory I 50 Marina Bay Parkway, G164	Stanch	Date Received	Lab No. (Leave Blank)
tichmond, CA 94804	L.Da	7/10//3 te & Time Sampled	Serial Number
10-620-2911		13-0721	R 95920
ollector Information	Reporting	Information	
ame: Rich Ireinen	Name: Dept./Brar	ach:	
ept./Branch: DO Box 56 ddress: Avila Beach, CK 9:	3424 Address:	юп.	
elephone No.: 805-545-6481	Telephone	• No.:	and the state of t
ample Information ystem Name / Facility: 1 1 ablo C	Billing Ag		
			☐ RWQCB(-) ☐ DTSC ☐ DWR ☐ CDFG
55	2	Other (S	
ystem No.:			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
PE OF SAMPLE (Check all applicable box			
Drinking Water Groundy	water	Water \	→ □ Wastewater□ Point of Use (POU)
Raw Water Ti Treated (circle one): Chlorinated / Chlorar			
Treated (citicle one). Chiofinated / Chiofai	filliated / Chilothie Dioxide / Ozona	C C	
	oate/Time	ter	☐ Sludge (Semi-solid Samples
Finishing:	Milk *		☐ Soil/Sediment
Starting:	Wipes		☐ Biota (Type):
Net (M ³)	ृ □ Radon	Canister	Other: Trifican Sam
Air Charcoal Cartridge			
DMMENTS: (Cautions etc.)			
ray representation of the contract of the cont	Ced/Froze	n:	Other:
Field Treatment: Preservatives added:		n:	Other:
Field Treatment: Preservatives added: Field Measurement:	mR/hr	n: uclide(s), if known: _	Other:
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and	mR/hr ☐ Radion have supervisory approval)		Other:
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple	mR/hr ☐ Radion have supervisory approval) ase call 510-620-2911	uclide(s), if known:	
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple	mR/hr Radion have supervisory approval) ase call 510-620-2911) Gross Beta	uclide(s), if known:	a Scan
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium	mR/hr Radion have supervisory approval) ase call 510-620-2911 Gross Beta Total Beta (LSC)	Gamma	a Scan (Gamma)
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium	mR/hr	Gamma NORM Isotopic	a Scan (Gamma) : Americium / Curium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226	mR/hr Radion have supervisory approval) ase call 510-620-2911 Gross Beta Total Beta (LSC) Tritium (³H) Carbon-14	Gamma NORM Isotopic	a Scan (Gamma) : Americium / Curium : Plutonium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228	mR/hr Radion have supervisory approval) ase call 510-620-2911) Gross Beta Total Beta (LSC) Tritium (³H) Carbon-14	Gamma NORM Isotopic Isotopic	a Scan (Gamma) : Americium / Curium : Plutonium : Thorium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify);	mR/hr Radion have supervisory approval) ase call 510-620-2911) Gross Beta Total Beta (LSC) Tritium (³H) Carbon-14	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify);	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha. Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha. Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY Date Date Name (Print)	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Uranium $\frac{7/9//3}{\text{Date}}$
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY Date (70)	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Uranium $\frac{7/9//3}{\text{Date}}$
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha. Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY Time Custody Received Date Name (Print) Time Custody Received Organization	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium $\frac{7/9//3}{\text{Date}}$ $\frac{1700}{\text{Time Custody Released}}$
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY Date Date Date Date Name (Print) Time Custody Received Organization Name (Print)	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Urapium
Radon-222 Other (Specify); HAIN OF CUSTODY Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Time Custody Received Organization	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Uranium
Field Treatment: Preservatives added: Field Measurement: Rush/Priority (should be prearranged and NALYSIS REQUESTED (For questions, ple Gross Alpha Total Uranium Total Radium Radium-226 Radium-228 Radon-222 Other (Specify); HAIN OF CUSTODY Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Organization Date Name (Print) Time Custody Received Organization	mR/hr	Gamma NORM Isotopic Isotopic	a Scan (Gamma) c Americium / Curium c Plutonium c Thorium c Uranium Thorium c Trime Custody Released Date Time Custody Released Date



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0473

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Avila Beach

93424

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 6/18/2013

MDA 95 **Units** Result +/- CE Method **Parameter** Sampling Point: Outfall Water R 96042 Time Collected: 6/17/2013 07:30 Lab No: 13-0473-01 Sample ID: Sample Type: Seawater pCi/L 82.5 349 +/- 22.5 EPA 901.1 K-40

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radi 850 Marina Bay Parkway,			Date Received 6-18-13	Lab No. (Leave Blank) 13-0479
Richmond, CA 94804 510-620-2911		6/17	ate,& Time Sampled	R 96042
Collector Information Name: Rick Train Dept./Branch: PO Box Address: Avila Baa	L, CA 93424	Reportin Name: Dept./Bra Address:	g Information	
Telephone No.: 805- 5	45 - 6481	Telephon	e No.:	
Sample Information System Name / Facility: Sampling Point (s): System No.:	OUT OUT	Billing A DWFC DWTF	OB() RHB PB PB PDB PDB	RWQCB() DTSC DWR DCDFG Decify)
YPE OF SAMPLE (Chec	k all applicable boxes)			
Drinking Water	☐ Groundwater☐ Water Treatme	Surfac nt Plant (WTP) Distrib 1 / Chlorine Dioxide / Ozon	oution System	☐ Wastewater ☐ Point of Use (POU) pridated / Coagulated / pH Adjuste
Air Filters	Date/Tin	ne XÚ Seawa	ater	☐ Sludge (Semi-solid Samples
		Milk	\	☐ Soil/Sediment
				☐ Biota (Type):
Net (M ³)			n Canister	Other:
Air Charcoal Cartridge	He was to be a second			
	e prearranged and have s (For questions, please ca			
I Gross Alpha		☐ Gross Beta	Gamma	Scan
Total Uranium		☐ Total Beta (LSC)	□ NORM ((Gamma)
Total Radium		☐ Tritium (³Ḩ)	* · · · · · · · · · · · · · · · · · · ·	Americium / Curium
Radium-226		☐ Carbon-14	☐ Isotopic	
Radium-228		lodine-131	☐ Isotopic	
Radon-222		☐ Strontium-89, 90	☐ Isotopic ☐ Iron-55	Uranium
Other (Specify);		☐ Nickel-63	U 11011-55	
CHAIN OF CUSTODY 10/17/13 Date 0730	Rick Trein Name (Print) PG & E		111/-	6/17/13 Date/700
Time Custody Received	Organization	Eignatur	9	Time Custody Released
Date	Name (Print)			Date
Time Custody Received	Organization	Signature	9	Time Custody Released
Date Date	Name (Print)		Dulona M.	Date Date
11:30	VW.	Signature Signature		Time Custody Released
Time Custody Received	Organization	Signatur		Tano dastay No. Base
LABORATORY REMARK A. Condition at Time of R Condition at Time of R Holding Time Exce	eceipt: Broken Co		iked in Transit ufficient Sample	□ Improper Container
B. Preservatives/Carriers	:		·Added	□ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0474

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 6/18/2013

Task ID: 13-0474

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0474-01	Sample ID: R 96041 Sample Type: Seawater	Time Collected: 6/17/2013	07:30 Sampling Poir	t: Outfall Water
Tritium	EPA 906.0	96.1 +/- 152	257	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	ANALYSIS (Radiochemicar)	<u>in 1911 and the later of the Marie 1</u> 7
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804 /510-620-2911	Date Received O 1813 Date Offine Sampled C/17/13 - 073 0	Lab No. (Leave Blank) 13-0474 Serial Number R 96041
Collector Information Name: Rich Treinan Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424	Reporting Information Name: Dept./Branch: Address:	
Telephone No.: 805-545-6481	Telephone No	
Sample Information System Name / Facility DCPP OUTFALL Sampling Point (s): System No.:	Billing Agency ☐ DWFOB(♥ ☐ RHB ☐	RWQCB() DTSC DWR DCDFG ecify)
TYPE OF SAMPLE (Check all applicable boxes)		
□ Drinking Water □ Groundwater □ Water Treatment Plant (WTP) □ Treated (circle one): Chlorinated / Chloraminated / Chlorine Did	-₹^V	☐ Wastewater ☐ Point of Use (POU) idated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater	Sludge (Semi-solid Samples)
Finishing:	Milk	☐ Soil/Sediment
Starting:	☐ Wipes	☐ Biota (Type):
Net (M³)	Radon Canister	M Other: TATUM SAMPLE
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):	☐ Radionuclide(s), if known: ☐	ther:
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	
☐ Gross Alpha ☐ Gross Be	a 🚨 Gamma S	can
☐ Total Uranium ☐ Jotal Beta	(LSC) INORM (G	amma)
Tritium (3)	¶ Isotopic A	mericium / Curium
☐ Radium-226 ☐ Carbon-1	1-2	lutonium
☐ Radium-228 ☐ todine-13		horium
☐ Radon-222 ☐ Strontium	-89, 90 ☐ Isotopic U	ranium
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY 1 /c//7//3 Date 0730 Time Custody Received Name (Print) Organization Name (Print)	M. Signature	Date 1700 Time Custody Released
Date (Filit)		Date
Time Custody Received Organization 3. 6-18-13	Signature Dutoria MOL	Time Custody Released
Time Custody Received Organization	Signature	Time Custody Released
A. Condition at Time of Receipt: (1947) A. Condition at Time of Receipt: (1947) Broken Container- Holding Time Exceeded (1948) Sample Not Cooled	□ Leaked in Transit □ Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers:	□ Not Added	☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0463

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

Samples Received by Lab: 6/11/2013

CA

System No:

Billing Agency: RHB

MDA 95

Units

Parameter

Method

Result +/- CE

Lab No: 13-0463-01

R 92350

Time Collected: 6/10/2013 07:40

Sampling Point: Bio Lab Sink

Sample Type: Drinking Water

Sample ID:

K-40

EPA 901.1

8.29 +/- 17.3

81.0

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

		ANALYSIS (Radiochemical)	Lab No. (Leave Blank)
Sanitation and Radiation L		Date Received	Lab No. (Leave Dialik)
50 Marina Bay Parkway, G	164	6-11-19	1200165
ichmond, CA 94804 10-620-2911	and the second second	Date & Time Sampled	Serial Number
10-020-2911		6/10/12-0740	<u>R 92350</u>
ollector Information		Reporting Information	
ame: ————————————————————————————————————	POK	Name: Dept./Branch:	
ept./Branch: PD. BD	x 56 - , azwy	Address:	
ddress: AULA	156 SEACH, CA 93424		
elephone No.: (805) 5	45-4409	Telephone No.:	
ample information		Billing Agency	() 5700
system Name / Facility:	B10 4113	DWFOB() RHB RWQO DWTPB FDB DWR	
ampling Point (s):	DW1	D DWTPB U FDB U DWR D EMB U Other (Specify)	
ystem No.:	DWI		
YPE OF SAMPLE (Check	all applicable boxes)		
Drinking Water	☐ Groundwater		astewater
l Raw	☐ Water Treatment Plant (WTP)		int of Use (POU)
Treated (circle one): Chl	orinated / Chloraminated / Chlorine Dio	vide / Ozonated / Peroxizone / Fluoridated	/ Coagulated / pH Adjuste
	Date/Time		udge (Semi-solid Samples
Air Filters			il/Sediment
Finishing:			ota (Type):
			her:
Net (M³)		Radon Carrister 3 Of	nior.
Air Charcoal Cartridge			*
OMMENTS: (Cautions et	c.):		
Field Treatment: Pres	ervatives added:	ced/Frozen: Other:	
Field Measurement:		Radionuclide(s), if known:	
Duch/Priority (should be	prearranged and have supervisory app	All the second s	
NALYSIS REQUESTED (For questions, please call 510-620-291		
Gross Alpha	☐ Gross Bet		
1 Total Uranium	☐ Total Beta	The state of the s	
Total Radium	☐ Tritium (³I		
Radium-226	☐ Carbon-1	- War	
Radium-228	☐ Iodine-13	and the state of t	
Radon-222	☐ Strontium	Andrew 1	n
Other (Specify);	Nickel-63	□ Iron-55	
HAIN OF CUSTODY			,,,,,
· Leliolis	Name (Print)		Date
Date	Name (Print)	Bu Val	1700
Time Custody Received	Organizátion	Signature	Time Custody Released
•			Date
Date	Name (Print)		Date
Time Custody Received	Organization	Signature	Time Custody Released
	11/4		Date
Date	Name (Print)	Muliona M. Alr	
Time Custody Received	Organization	Signature Signature	Time Custody Released
ABORATORY REMARKS Condition at Time of Recognition	(Leave Blank) ≤ 0.0 N	1K/HR.	
A. Condition at Time of Res	☐ Broken Container		Improper Container
Holding Time Exceed	ded Sample Not Cooled	☐ Insufficient Sample	
. Preservatives/Carriers:			
☐ Added While Sampli	ng 🖸 Added in Laboratory	🗘 Not Added 🕆 💢	Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0464

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

CA 93424 Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 6/11/2013

Parameter Method Result +/- CE

MDA 95

Units

Lab No: 13-0464-01

Time Collected: 6/10/2013 07:40

Sample Type: Drinking Water

Sample ID: R 92260

Sampling Point: Bio Lab Sink

Task ID: 13-0464

Tritium

EPA 906.0

36.0 +/- 151

257

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

state of California – Health and Welfare Agency				California Department of Public Health
	QUEST FOR SAMPLE	ANALYSIS (Radioche Date Receive	emical)	Lab No. (Leave Blank)
Sanitation and Radiation Laboratories Br 850 Marina Bay Parkway, G164	ancii	Y 168	12	13-0464
Richmond, CA 94804		Date & Time San	moled	Serial Number
510-620-2911	A Company of the Comp	iki / W	0741	R 92260
Collector Information		Reporting Information		*
Name: Tax Hank		Name:		
Dept./Branch: On BIX 576		Dept./Branch: Address:		
Dept./Branch: Address: AUI.A. BEACHICA	73424	Tudicoc.	&	
Telephone No.: 1853-4409		relephone No.:	<u>*</u>	
Sample Information	1	Billing Agency	D D14	D DTCC
System Name / Facility: B/D 471	9		IRHB 🖵 RW IFDB 🗀 DW	/QCB() DTSC /
Sampling Point (s):	The second secon		I FDB ULDW I Other (Specify)	
System No.:	The second secon	U EMD -	Otrior (Opena),	
TYPE OF SAMPLE (Check all applicable be	oxes)		share and the same of the same	
☑ Drinking Water ☐ Groun	ndwater	Surface Water		Wastewater Point of Use (POU)
□ Paw U Water	r Treatment Plant (WTP)	Distribution System		
☐ Treated (circle one): Chlorinated / Chlorinated	raminated / Uniorine Dio			
☐ Air Filters	Date/Time	Seawater		Sludge (Semi-solid Samples)
Finishing:		Q Milk		Soil/Sediment
Starting:		☐ Wipes		Biota (Type):
Net (M³)	**	Radon Canister		Other: TRITIUM BOTTLE
□ Air Charcoal Cartridge	· v		. 0	
Alf Charcoal Carthage	<u> </u>		- i	
COMMENTS: (Cautions, etc.):		*	- 1 G.	
☐ Field Treatment: Preservatives added	d:	/ leed/Frozen:		
☐ Field Measurement:	mR/hr	Radionuclide(s), if	known:	<u> </u>
☐ Rush/Priority (should be prearranged ar	nd have supervisory app	roval)		
ANALYSIS REQUESTED (For questions, p		736		
☐ Gross Alpha	🔲 🧘 ss Bet	_	☐ Gamma Scar	1
☐ Total Uranium	☐ Total Beta	*	□ NORM (Gam	ma)
☐ Total Radium	☐ Tritium (³H	and the state of t	Isotopic Ame	ricium / Curium
Radium-226	☐ Carbon-14		☐ Isotopic Pluto	onium
Radium-228	☐ l æt ine-13′	₹	Isotopic Thor	
Radon-222	☐ S contium	*	Isotopic Uran	ilum
Other (Specify);	□ Nøkel-63		☐ Iron-55	
CHAIN OF CUSTODY				11
1. 6/10/13 Tom H	bok	~ /_ /	en e	6/10/12
Date Name (Print)	- * (≪	W)/2	1	Date /7/0
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2	And the second	3 .5.4		
Name (Print)	30			Date
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3. 6-11-15	UA C			Date
Date S Q O Name (Print)	DWRIB	aluto	M. Ole	
Time Custody Received Organization		Signature		Time Custody Released
	/ 0.0	no line		
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	£ 0,01	MR/HR		
☐ Acceptable ☐	Broken Container	Leaked in Transit		☐ Improper Container
☐ Holding Time Exceeded ☐ ☐	Sample Not Cooled	 Insufficient Sample 		
B. Preservatives/Carriers:	ψ	D Maradad		☐ Not Applicable
I □ Added While Sampling □	Added in Laboratory	☐ Not Added	ADMINISTRAÇÃO DE PRODUCTION DE	C HOLAPPRODUC



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0461

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Task ID: 13-0461

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

CA

System No:

Billing Agency: RHB

Samples Received by Lab: 6/11/2013

Result +/- CE Units **Parameter** Method **MDA** 95 R 96032 Time Collected: 6/10/2013 Sampling Point: Diablo Creek Lab No: 13-0461-01 Sample ID: Sample Type: Drinking Water K-40 EPA 901.1 1.04 +/- 13.6 64.2 pCi/L

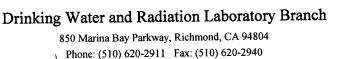
⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radiation Laboratory Branch Sol Marina Bay Parkway, 164 Richmond, CA 94804 Sol Marina Bay Parkway, 164 Richmond, CA 94804 Sol Marina Bay Parkway, 164 Richmond, CA 94804 Richmond, Richmon		REQUES	T FOR SAMPLE	ANALYSIS (Radiochemical)	garangan daga aras da kabasa mereb
Collector Information Name:	850 Marina Bay Parkway,	iation Laboratory Bran	nch	Date Received 6-[[-13]	
Collector Information Name: First Flook Power			A STATE OF S		
Name: Port Hook Dept/Paranch: Address: Mul BUNH, G. 1974 Address: Mul Bunh, G.					1 100002
Address: Address: Add Address: Addr	Name: John	400K		Name:	
Telephone No. Sur - U-U-G Telephone No. Sample Information System Name / Facility. DIABJO CALEAL DIMFOB() RHB RWQCB() DTSC DWFOB() DWFOB() DWR CDFG DWR CDFG	Address:	NY 560	•		
Sample Information System Name Facility: System No: DIMPB	Total and Sur	BONG CILLAGO			
System Name Facility: DIAGO CAUGAL DIAGO COPES DIA					
System No.: System No. System No. CDFG DWR CDFG		DIABLO GUES	IL .	na ,	L DWOOD /) D DTOO
System No.: TYPE OF SAMPLE (Check all applicable boxes) Orinking Water Raw Orinking Mater Raw Orinking Water Raw Orinking Water Raw Orinking Raw Raw Orinking Water Raw Orinking Water Raw Orinking Water Raw Orinking Water Raw Orinking Mater	Sampling Point (s):	500		1_	
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water	System No.:	322		*	
Groundwater		k all applicable boxes)			
Raw	Drinking Water	☐ Groundwater	·	☐ Surface Water	☐ Wastewater
Air Filters		Water Treatn	nent Plant (WTP)	☐ Distribution System	Point of Use (POU)
Milk Soil/Sediment Starting: Milk Soil/Sediment Starting: Milk Soil/Sediment Starting: Milk Soil/Sediment Blota (Type): Radon Canister Other: Other: Air Charcoal Cartridge Radon Canister Other: Comments: Cautions, etc.): Field Measurement: mR/hr Radionuclide(s), if known: Radionuclide(s	☐ Treated (circle one): Cl	nlorinated / Chloraminat	ed / Chlorine Diox	ide / Ozonated / Peroxizone / Fluo	ridated / Coagulated / pH Adjusted
Milk Soil/Sediment Starting: Milk Soil/Sediment Starting: Milk Soil/Sediment Wipes Blota (Type): Radon Canister Other: Other: Other: Other: Other: Other: Preservatives added: Radon Canister Other: Other: Other: Preservatives added: Radon Canister Other: Other: Other: Preservatives added: Radon Canister Other: Other: Preservatives added: Radon Canister Other: Other: Other: Preservatives added: Radon Canister Other:	☐ Air Filters	Date/	ime	☐ Seawater	☐ Sludge (Semi-solid Samples)
Starting: Net (M*) Air Charcoal Cartridge COMMENTS: (Cautions, etc.):	Finishing:			☐ Milk	
Net (M*) Air Charcoal Cartridge COMMENTS: (Cautions, etc.): Field Treatment: Preservatives added: Field Measurement: mR/hr Radionuclide(s), if known: Radionuclide(s), if known: Field Measurement: mR/hr Radionuclide(s), if known: Radionuclide(s), if known: Radionuclide(s), if known: Radionuclide(s), if known	Starting:			☐ Wipes	
Air Charcoal Cartridge COMMENTS: (Cautions, etc.):	Net (M ³)	h N			
Field Measurement:	☐ Air Charcoal Cartridge				
Field Measurement:	COMMENTS: (Cautions e	to):			
Field Measurement:	☐ Field Treatment Pres	envatives added:		lood/France	the state of the s
Rush/Priority (should be prearranged and have supervisory approval) ANALYSIS REQUESTED (For questions, please call 510-620-2911) Gross Alpha Gross Beta Total Uranium Gross Alpha Total Beta (LSC) NORM (Gamma) Isotopic Americium / Curium Radium-226 Radium-228 Radon-222 Strontium-89, 90 Isotopic Thorium Isotopic Thorium Isotopic Uranium Nickel-63 Iron-55 CHAIN OF CUSTODY Improved Corganization Time Custody Received					
ANALYSIS REQUESTED (For questions, please call 510-620-2911) Gross Alpha Gross Beta Total Uranium Total Beta (LSC) NORM (Gamma) Stotopic Americium / Curium Radium-226 Radium-228 Radium-228 Radon-222 Strontium-89, 90 Isotopic Thorium Strontium-89, 90 Isotopic Uranium Nickel-63 Iron-55 CHAIN OF CUSTODY Time Custody Received Name (Print) Date Name (Print) Date Time Custody Received Organization Name (Print) Date Time Custody Received Organization Signature Time Custody Released ABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable Broken Container Radium-229 Broken Container Radium-228 Gramma Scan NORM (Gamma) Isotopic Americium / Curium Isotopic Plutonium Isotopic Thorium Isotopic Thorium Isotopic Thorium Date Time Custody Released Date Time Custody Released			_	val)	
Gross Alpha Gross Alpha Gross Beta Total Uranium Total Beta (LSC) NORM (Gamma) Stotopic Americium / Curium Stotopic Plutonium Isotopic Plutonium Stotopic Torium Stotopic Uranium Other (Specify); Nickel-63 Iron-55 CHAIN OF CUSTODY Stotopic Uranium Other (Specify); Signature Time Custody Received Organization Signature Time Custody Released Date Time Custody Received Organization Signature Time Custody Released Time Custody Released Time Custody Received Organization Signature Time Custody Released				('	
□ Total Uranium □ Total Beta (LSC) □ NORM (Gamma) □ Total Radium □ Tritium (²H) □ Isotopic Americium / Curium □ Radium-226 □ Carbon-14 □ Isotopic Plutonium □ Radium-228 □ Isotopic Thorium □ Isotopic Uranium □ Isotopic Ura		r or questions, please o			
□ Total Radium □ Radium-226 □ Carbon-14 □ Isotopic Americium / Curium □ Radium-228 □ Iodine-131 □ Isotopic Plutonium □ Isotopic Thorium □ Isotopic Thorium □ Isotopic Uranium □ Isotopi	* **				
Radium-226				` · · · · · · · · · · · · · · · · · · ·	•
Radium-228 Radon-222 Strontium-89, 90 Isotopic Thorium Stotopic Uranium Isotopic Uranium Is			` .		
Radon-222	· -			√. — .ootopio≀	
Other (Specify);	☐ Radon-222			\	
CHAIN OF CUSTODY 1. Date Name (Print) Time Custody Received Organization 2. Date Name (Print) Date Name (Print) Time Custody Received Organization Signature Signature Time Custody Received Organization Date Organization Name (Print) Date Organization Name (Print) Date Organization Name (Print) Date Organization Name (Print) Date Organization Date Organiz	Other (Specify);			· · · · · · · · · · · · · · · · · · ·	ramum
Date Name (Print) Date Time Custody Received Organization Date Date	CHAIN OF CUSTODY				
Time Custody Received Organization Signature Time Custody Released Date Name (Print) Time Custody Received Organization Signature Time Custody Received Organization Date Time Custody Received Organization Signature Time Custody Released Date O'. U.5 Time Custody Received Organization Date Time Custody Released ABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable Broken Container Leaked in Transit Insufficient Sample Preservatives/Carriers: P. Added White Samples					4/10/13
Time Custody Received Organization Date Name (Print) Time Custody Received Organization Time Custody Received Organization Date O': U5 Time Custody Received Organization Name (Print) Date O: U5 Time Custody Received Organization Name (Print) Date O: U5 Time Custody Received Organization Name (Print) Date Time Custody Released	1730	PG SE	Carried Contract	19	
Date Date Name (Print) Date		Organization		Signature /	
Date O'. US Time Custody Received Organization ABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable Holding Time Exceeded Broken Container Sample Not Cooled Insufficient Sample Date Time Custody Released	+	Name (Print)			Date
Date Time Custody Received Organization Organization Organization Signature Signature Time Custody Released ABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable Holding Time Exceeded Broken Container Insufficient Sample Preservatives/Carriers: Added While Sampling Date Time Custody Released				Signature	Time Custody Released
Time Custody Received Organization Signature Time Custody Released ABORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable Holding Time Exceeded Broken Container Insufficient Sample Broken Container Insufficient Sample		Name (Print)	2 . 12	19 1	Date
ABORATORY REMARKS (Leave Blank)	Time Custody Received		1CB	Signature Signature	Time Custody Palaced
A. Condition at Time of Receipt: Acceptable Broken Container Leaked in Transit Improper Container Insufficient Sample Preservatives/Carriers: Added Miking Sampling Added in Leaked in Transit Improper Container					Time Custody Released
Holding Time Exceeded Sample Not Cooled Insufficient Sample B. Preservatives/Carriers:	 Condition at Time of Rec 	eipt:		IN V/HK	
3. Preservatives/Carriers:					☐ Improper Container
Added While Sameline D Added in Lebester D					
		Added in I	aboratory	□ Not Added \	☐ Not Applicable







FINAL Analysis Results Report for Task ID. 13-0462

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach CA Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / June 2013

Samples Received by Lab: 6/11/2013

System No:

Billing Agency: RHB

Units

Parameter

Tritium

Method

Result +/- CE

MDA 95

Lab No: 13-0462-01

Sample ID:

R 96021

EPA 906.0

Time Collected: 6/10/2013 07:30

Sampling Point: Diablo Creek

Sample Type: Drinking Water

-50.0 +/- 148

257

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

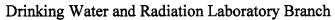
⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radiation	REQUEST FOR SAMPLE n Laboratory Branch	Date Received		ab No. (Leave Blank)
850 Marina Bay Parkway, G164		+16-11-13.		3-10462
Richmond, CA 94804		Date & Time Samp		Serial Number D 06021
510-620-2911		6/10/12-0		R 96021
Collector Information		Reporting Information		
Name: Totaltook	56	Name: Dept./Branch:		
Dept./Branch: P.O. Box Address: AVILA BEA	CUI,CA 93424	Address:		
		*	en de la companya de La companya de la co	
Tolophono iteli og 2	5-4409	Lelephone No.: Billing Agency		
Sample Information System Name / Facility:	IABLO CAFFE	The second secon	RHB 🔲 RWQCE	3() ☐ DTSC
		. Note:	FDB DWR	CDFG
	552		Other (Specify)	- with
System No.:				EN .
TYPE OF SAMPLE (Check all		Surface Water	□ Was	tewater
☑ Drinking Water ☐ Raw	☐ Groundwater☐ Water Treatment Plant (WTP)	Distribution System	☐ Poin	t of Use (POU)
☐ Treated (circle one): Chlori	inated / Chloraminated / Chlorine Dio	oxide / Ozonated / Peroxizo	one / Fluoridated /	Coagulated / pH Adjusted
		☐ Seawater		lge (Semi-solid Samples)
Air Filters	Date/Time	Milk		Sediment
Finishing:			and the second second	a (Type):
· · · · —		Wipes Reden Conjeter	Othe	er: TRITIVM BOTTLE
Net (M ³)		Radon Canister		я. <u>Дигруги г</u>
☐ Air Charcoal Cartridge			0	
COMMENTS: (Cautions, etc.):		A	Service Const.	
☐ Field Treatment: Preserv		ced/Frozen:	Other:	
☐ Field Measurement:		Radionuclide(s), if k	known:	
· · ·	earranged and have supervisory app	proval)		
	r questions, please call 510-620-291			
☐ Gross Alpha	☐ Gross Be	- /®	Gamma Scan	
☐ Total Uranium	☐ Total Bet		NORM (Gamma)	
☐ Total Radium	☐ Tritium (³	_ %	I Isotopic Americius	m / Curium
Radium-226	☐ Carbon-1		I Isotopic Plutoniun	n
Radium-228	☐ lodine-13		I Isotopic Thorium	
Radon-222	☐ Strontium	整 4 - 25	I Isotopic Uranium	
Other (Specify);	☐ Ntokel-63	The state of the s	Iron-55	
CHAIN OF CUSTODY				11. /12
1. 6/10/12	Tom Hook	The state of		<u>6//0//5</u> Date %
Date	Name (Print)	ON MODEL		100
Time Custody Received C	Organization	Signature //		Time Custody Released
2 =	Name (Print)			Date
	The state of the s	Signature		Time Custody Released
Time Custody Received C	Organization UA	Orginatoro -		
Date 13:00	Name (Print) DWRLB	Valor	on Os	Date
	Organization DWKCD	Signature	el III en	Time Custody Released
er an state of the				
LABORATORY REMARKS (L		e/He		
A. Condition at Time of Recei	□ Broken Container . □	☐ Leaked in Transit	er. D	Improper Container
☐ Holding Time Exceeded		☐ Insufficient Sample		
B. Preservatives/Carriers:	☐ Added in Laboratory	□ Not Added	á	Not Applicable
nnilome2 alid\\\ hobb\\ C	I Added in Laboratory	LI NULAUUCU		· · · · · · · · · · · · · · · · · · ·



State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0373

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach Phone Number: 805-545-4409 CA

95814-5006

Sacramento Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / May 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 5/14/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0373-01	Sample ID: R 96067 Sample Type: Seawater	Time Collected: 5/13/2013	07:45 Sampling Point	: Outfall Water
K-40	EPA 901.1	332 +/- 17.4	60.1	pCi/L

Task ID: 13-0373 Page 1 of 1

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FOR SAMPLE	ANALYSIS (Radio	ochemical)	They was a tipe for first.
850 Marina Bay Parkway, Richmond, CA 94804	iation Laboratory Branch G164	Date Rec 5-72 Date & Time	1-13	Lab No. (Leave Blank) 3 0373 Serial Number
510-620-2911		5/13/13-07		R 96067
Collector Information Name: Dept./Branch: P.O. Bo. Address: AMLA B	tok 156 SEACH, C1 93424	Reporting Informa Name: Dept./Branch: Address:	tion	
Telephone No.: (805)	545-4409	Telephone No.:		1 00 °
Sample Information System Name / Facility: Sampling Point (s): System No.:	DOPP OUTFALL OUT	Billing Agency DWFOB() DWTPB	RHB RWQ	☐ CDFG
TYPE OF SAMPLE (Chec	k all applicable boxes)			
☐ Drinking Water ☐ Raw			em 🚨 Po	astewater int of Use (POU) / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	⊠ Seawater	□ Sh	udge (Semi-solid Samples)
Finishing:		Milk		il/Sediment
		☐ Wipes		ota (Type):
		☐ Radon Canister		her:
☐ Air Charcoal Cartridge				ner.
COMMENTS: (Cautions. e	etc.):		a Carlotta	
☐ Field Treatment: Pres	etc.);servatives added:	lced/Frozen:		en propinsione de coloni en p ropinsione de colonia.
☐ Field Measurement:		Radionuclide(s),		
	e prearranged and have supervisory appro			
ANALYSIS REQUESTED	(For questions, please call 510-620-2911)			
☐ Gross Alpha	☐ Gross Beta	P	💋 Gamma Scan	
☐ Total Uranium	☐ Total Beta		NORM (Gamma)
☐ Total Radium	☐ Tritium (³H)	; •	☐ Isotopic Americia	
☐ Radium-226	☐ Carbon-14		☐ Isotopic Plutoniu	
☐ Radium-228	☐ lodine-131		☐ Isotopic Thorium	
☐ Radon-222	☐ Strontium-8	9, 90	☐ Isotopic Uranjum	
Other (Specify);	Nickel-63		☐ Iron-55	<u> </u>
CHAIN OF CUSTODY	Tor Hok			The la
1. <u>5//3//3</u> Date	Name (Print)			5//3//3 Date
7/45 Time Custody Received	PGIE	- Hours	1	1100
2.	Organization	Sigheture //		Time Custody Released
Date	Name (Print)			Date
Time Custody Received 3. 5-14-13	Organization	Signature		Time Custody Released
Date 111:41)	Name (Print)	19.1	mann Mr.	Date
Time Custody Received	Organization	Signature	Jan Mary	Time Custody Released
LABORATORY REMARKS A. Condition at Time of Rec	celpt: Broken Container	R /HR Leaked in Transit Insufficient Samp		Improper Container
B. Preservatives/Carriers; ☐ Added While Samplir	ng 🚨 Added in Laboratory 🔪	□ Not Added		Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0374

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / May 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 5/14/2013

Result +/- CE **MDA** 95 Units Method **Parameter** Sampling Point: Outfall Water Sample ID: R 96056 Time Collected: 5/13/2013 07:45 Lab No: 13-0374-01 Sample Type: Seawater 257 pCi/L 62.1 +/- 151 EPA 906.0 Tritium

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

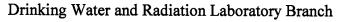
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE			Lab No. (Leave Blank)
Drinking Water and Radiation Laboratory Branch	Date Receive	%	13-12374
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sar	noled	Serial Number
510-620-2911	5/13/13-07		R 96056
Collector Information	Reporting Information	n .	
Name: Tous thou	Name:		
Dent (Branch: 00 Box 07-	Dept./Branch: Address:		
Address: ANIA ESAGI, CA 73424	6 may (2000)		
Telephone No.: (205) 545-4409	n elephone No∴		
Sample Information	Billing Agency		CCB() DTSC
System Name / Facility: DO 13-4-CC Sampling Point (s):		RHB 🚨 RWO	
Sampling Fount (9).	1 —	Other (Specify)	
System No.:		<u></u>	<u> </u>
TYPE OF SAMPLE (Check all applicable boxes)			Vastewater
Drinking Water	Surface Water Distribution System		vasiewalei Point of Use (POU)
☐ Raw ☐ Water Treatment Plant (WTP) ☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	xide / Ozonated / Perox	izone / Fluoridate	d / Coagulated / pH Adjusted
Treated (circle one). Chilomated / Chilomate	2.7		
☐ Air Filters Date/Time	Seawater		Sludge (Semi-solid Samples)
Finishing:	Milk		Soil/Sediment
Starting:	☐ Wipes		Siota (Type):
Net (M ³)	Radon Canister	, , <u>)</u> xa c	Other: TRITIUM SAMPLE
☐ Air Charcoal Cartridge			
COMMENTS: (Cautions etc.):			Marine Marine Committee Co
COMMENTS: (Cautions, etc.): □ Field Treatment: Preservatives added:	cett/Frozen:	Other:	
☐ Field Measurement:mR/hr	Radionuclide(s),	f known:	
Rush/Priority (should be prearranged and have supervisory app		Č	
	4:		
ANALYSIS REQUESTED (For questions, please call 510-620-291		☐ Gamma Scan	
C Tatal Date	T	NORM (Gamn	na)
Takking /3	- /2/	☐ Isotopic Ameri	
D Ondran 1		☐ Isotopic Plutor	
		☐ Isotopic Thori	
Tradition and		☐ Isotopic Urani	
	• ,	☐ Iron-55	
— Otto (opoc.))			
1 5/13/13 Ton Hook			5/13/13
1. 5/13/13 / OA4 / 100/2	" 14		Date
0195 101E	1770011		
Time Outside Dominion Organization	** Signature //	3.4	Time Custody Released
Time Custody Received Organization	**************************************		
	2		Time Gustody Released Date
2. Date Name (Print)	2		
Date Name (Print) Time Custody Received Organization 3.	Signature		Date Time Custody Released
2. Date Name (Print) Time Custody Received Organization 3. Name (Print)	Signature	viaW. Oh	Date Time Custody Released Date
Date Name (Print) Time Custody Received Organization 3.	Signature	roll Oh	Date Time Custody Released
2. Date Name (Print) Time Custody Received Organization Date 1440 Time Custody Received Organization Name (Print) Name (Print) Organization	Signature Signature	rially-Oh	Date Time Custody Released Date
2. Date Name (Print) 3. Date Organization Name (Print) Organization LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	Signature Signature R/HR		Date Time Custody Released Date Time Custody Released
2. Date Name (Print) 3. Date Organization Name (Print) Date Organization Name (Print) Name (Print) Name (Print) Organization Name (Print) Organization LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: D. Acceptable Broken Container	Signature Signature P/HR Leaked in Transi		Date Time Custody Released Date
2. Date Name (Print) 3. Date Organization Name (Print) Date Organization Name (Print) Name (Print) Organization Name (Print) Organization LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	Signature Signature R/HR Leaked in Transi		Date Time Custody Released Date Time Custody Released

State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0353

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

93424

Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / May 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 5/8/2013

Parameter Method Result +/- CE MDA 95 **Units** Lab No: 13-0353-01 R 96065 Sample ID: Time Collected: 5/7/2013 08:00 Sampling Point: Bio Lab Sink Sample Type: Drinking Water K-40 EPA 901.1 -100 +/- 15.4 76.0 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	ANALYSIS (Radiocnemical) I Date Received Lab No. (Leave Blank)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	15-8-13 13-0353
Richmond, CA 94804 510-620-2911	Date & Time Sampled R 96065
Collector Information Name: Ton Hook Dept./Branch: P.O. BOX 56 Address: AULA BEAGI, CA 934241	Reporting Information Name: Dept./Branch: Address:
Telephone No.: (805) 545-4409	Telephone No.:
Sample Information System Name / Facility: Sampling Point (s): JW1	Billing Agency DWFOB() RHB RWQCB() DTSC DWTPB DWR CDFG EMB Other (Specify)
System No.:	
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Raw Water Treatment Plant (WTP) Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	Surface Water Distribution System Distribution
	Seawater Sludge (Semi-solid Samples)
A VII I III II	Milk Soil/Sediment
Finishing:	☐ Wipes ☐ Biota (Type):
Starting:	Radon Canister
Net (M³)	
☐ Air Charcoal Cartridge	
☐ Field Measurement:mR/hr ☐ Rush/Priority (should be prearranged and have supervisory app	roval)
ANALYSIS REQUESTED (For questions, please call 510-620-291	
☐ Gross Be	
☐ Total Uranium ☐ Total Bet	
☐ Total Radium ☐ Tritium (³	
☐ Radium-226 ☐ Carbon-1	
Madium 220	T 1 / iii
Maudi-222	<u> </u>
G Other (Specify),	
CHAIN OF CUSTODY 1. 57/3 Town Horok Name (Print)	5/7//3 Date/700
0800 P64K	Signature Time Custody Released
Time Custody Received Organization 2. Date Name (Print)	Date
	Signature Time Custody Released
3 5-8-13 UA	Date
Date 10.30 Name (Print) PWRLB	(1) relanio M (U)
Time Custody Received Organization	Signature Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: Acceptable Broken Container Holding Time Exceeded Sample Not Cooled B. Preservatives/Carriers: Added While Sampling Added in Laboratory	☐ Leaked in Transit ☐ Improper Container☐ Insufficient Sample☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0354

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

CA

Task ID: 13-0354

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canoyon NPP / May 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 5/8/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0354-01	Sample ID: R 96051 Sample Type: Drinking Water	Time Collected: 5/7/2013	08:00 Sampling Poin	nt: Bio Lab Sink
Tritium	EPA 906.0	-120.1 +/- 147	257	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

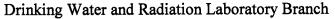
⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAM	PLE ANALYSIS (Radiochemical) Date Received Lab No. (Leave Blank)
Drinking Water and Radiation Laboratory Branch	Date Received Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sampled Serial Number
510-620-2911	5/7/13 = 0800 R 96051
Collector Information	Reporting Information
Name Tax thou	Name:
Dept. Dianon.	Dept./Branch: Address:
Address: ALICA BLACIL, CA 93424	
Telephone No.: (805) \$15-4409	Billing Agency
Sample Information System Name / Facility: PIO LAB	D DWFOB() RHB RWQCB() DTSC
Sampling Point (s):	D DWTPB D FDB DWR CDFG
1)w1	☐ EMB ☐ Other (Specify)
System No.:	
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water	☐ Surface Water ☐ Wastewater
Water Treatment Plant (M	VTP) Distribution System Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine	e Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
	☐ Seawater ☐ Sludge (Semi-solid Samples)
All I likes	☐ Milk ☐ Soil/Sediment
Finishing:	☑ Wipes ☐ Biota (Type):
Starting: Net (M ³)	Radon Canister Other: TRATILM SHALE
☐ Air Charcoal Cartridge	*
All Charcoal Cartrage	
COMMENTS: (Cautions, etc.):	sced/Frozen: • Qther:
Field Treatment: Preservatives added: mR/hr	☐ Radionuclide(s), if known:
- I teld telegopi cities :	
Rush/Priority (should be prearranged and have supervisory	
ANALYSIS REQUESTED (For questions, please call 510-620	-2911)
☐ Gross Alpha ☐ Gros	
La lotal Crantant	I Beta (LSC) □ NORM (Gamma) Im (³H) □ Isotopic Americium / Curium
☐ Total Radium ☐ Tritiu	
TAGUUM-220	
TREMOTITEE	Guan Di Iran-55
C Outch (opposity))	11 C
1. 5/7//3 Ton fook	<u> </u>
Date Name (Print)	Date 1700
Time Custody Received Organization	Signature Time Custody Released
2	Date
Date Name (Print)	
Time Custody Received Organization	Signature Time Custody Released
3. 5-6-12 Name (Print)	Tuloria Male Date
10:30 DWKLD	Signature Time Custody Released
Time Custody Received Organization	
	OIMR/HR
A. Condition at Time of Receipt: Acceptable Broken Container	
☐ Holding Time Exceeded ☐ Sample Not Cooled	Insufficient Sample
B. Preservatives/Carriers:	Not Ådded ☐ Not Applicable
Added While Sampling	



State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0355

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

CA Avila Beach

Sacramento CA 95814-5006

Phone Number: 805-545-4409

Site/Project Name: Diablo Canyon NPP / May 2013

Phone Number: 916-440-7955

System No:

Billing Agency: RHB

Samples Received by Lab: 5/8/2013

Parameter	Method	Result +/- CE	!	MDA 95	Units
Lab No: 13-0355-01	Sample ID: R 96068 Sample Type: Surface Water	Time Collected: 5/7/2013	07:30	Sampling Point:	Diablo Creek
K-40	EPA 901.1	30.6 +/- 12.5		57.4	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

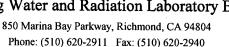
⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radiation Laboratory Branch			ANALYSIS (Radiochemical) Date Received Lab No. (Leave Blank)		
850 Marina Bay Parkway, G164		5-5-	12	13-0355	
Richmond, CA 94804		/ Date & Time Sam		Serial Number	
10-620-2911		5/7/13-0732		R 96068	
ollector Information	,	Reporting Information			
ame: Tom	Hook_	Name:			
ept./Branch:	0x 5%	Dept./Branch: Address:			
AVIA	HOOK BOX 576 BEACH,CA 93424				
elephone No.: /X <i>U5)</i>	545-4409	Telephone No.:			
ample Information	DIABLO CAFELL	Billing Agency	OUD CLOS	NOOD () DIDTEC	
ystem Name / Facility:	DIAMOU CHEST	DWFOB() DWTPB	FDB D DV	VQCB() DTSC VR DCDFG	
ampling Four (3).	552			/)	
ystem No.:			(-,		
YPE OF SAMPLE (Check	(all applicable boxes)				
Drinking Water	☐ Groundwater	Surface Water		Wastewater Point of Use (POU)	
l Raw	☐ Water Treatment Plant (W	(P) Ustribution System	u / Elwaddol	• •	
Treated (circle one): Cl	hlorinated / Chloraminated / Chlorine	Dioxide / Ozonated / Peroxiz	one / Fluorida	ed / Coagulated / pri Adjusted	
Air Filters	Date/Time	☐ Seawater		Sludge (Semi-solid Samples)	
		☐ Milk		Soil/Sediment	
		□ Wipes		Biota (Type):	
Net (M ³)		Radon Canister		Other:	

Air Charcoal Cartridge					
OMMENTS: (Cautions, e	etc.);			and the second of the second o	
Field Treatment: Pres		ced/Frozen:	Othe	r:	
Field Measurement:	mR/hr ₂	Radionuclide(s), if I	known:		
	e prearranged and have supervisory a	pproval)			
NAL VSIS PEOLIESTED	(For questions, please call 510-620-2	911)		3	
	Gross		i Gamma Sca	n :	
I Gross Alpha		· · · · · · · · · · · · · · · · · · ·	NORM (Garr		
Total Uranium	☐ Tritium		,	ericium / Curium	
Total Radium	☐ Carbo	· / · //	I Isotopic Ame		
Radium-226		<u> </u>	•	;	
Radium-228	☐ lodine		•		
Radon-222		ium-89, 90		ilum .	
Other (Specify);	□ Nickel	-63 U	Iron-55		
HAIN OF CUSTODY	TOM HOOK			5/7/13	
5/7//3 Date	Name (Print)			Date	
0730	PGTE	Freu / 12	<u> </u>	700	
Time Custody Received	Organization	Signature		Time Custody Released	
. Date	Name (Print)			Date	
				Time Custody Released	
Time Custody Received	Organization UA	Signature		Time Custody Released	
Date 10.22	Name (Print)	- 10 -+	011/01/	Date	
10:30	DWKCD	- (Tuloro	W. Ole	Time Custody Released	
Time Custody Received	Organization	Signature		Time Custody Released	
ABORATORY REMARK	S (Leave Blank) $ eq \mathcal{O}_{-}\mathcal{O}_{-}$	IMP/HR			
 Condition at Time of Re 	eceipt:	☐ Leaked in Transit		☐ Improper Container	
☐ Acceptable ☐ Holding Time Excee		☐ Insufficient Sample			
	A.				
B. Preservatives/Carriers:		☐ Not Added		□ Not Applicable	



Drinking Water and Radiation Laboratory Branch





FINAL Analysis Results Report for Task ID. 13-0356

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / May 2013

CA

Billing Agency: RHB

Samples Received by Lab: 5/8/2013

Parameter

System No:

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0356-01

Sampling Point: Diablo Creek

Sample ID: Sample Type: Surface Water

R 96055

Time Collected: 5/7/2013

07:30

Tritium

EPA 906.0

82.1 +/- 152

257

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Lab 803 (04/12)

Describing Water and Radiation Laboratory Branch SSO Marina Bay Parkway, G164 Richmond, CA 94804 Schedunger, CA 94804 Schedunger, CA 94805 Schedunger, CA 94		REQUEST FOR S	AMPLE ANALYSIS (R	(adiochemical)	
Richmodd, CA 94804 Fith e2d/2011 Collet of Information Names Ton-Hold Dept/Branch: Dept/Branch	Drinking Water and Rad 850 Marina Bay Parkway	iation Laboratory Branch	Date	Received	Lab No. (Leave Blank)
Solution Sept Sep	Richmond, CA 94804				
Reporting Information Reporting Information Reporting Information Report Information	510-620-2911				R 96055
Dept/Branch: Address Average	2. 3		Reporting Info		N JOSO
Augustation	lames Total H	ook,			er en
Pelephone No.: Pele	ddress:	X 56 3EAQ1, CA 93424	Address:		
Starting: Starting: Distribution System Starting: Starting: Distribution System Starting: Distribution System Starting: Distribution System Starting: Distribution System Di			Telephone No		
DWYPB DWYPB DYDR DWYPB		DIABLO CAGEN	Billing Agency		
System No.: Description D					WQCB() DTSC
Variable		552			
Drinking Water Groundwater Water Treatment Plant (WTP) Distribution System Point of Use (POU)		l. all and lead to the	. LINO	- Other (Speci	397
Raw			K Confess Mark		
Air Filters Date/Time Seawater Studge (Semi-solid Sample Finishing: Milk Soil/Sediment Starting: Milk Soil/Sediment Soil/Sediment Starting: Milk Soil/Sediment Starting: Starting: Milk Soil/Sediment Starting: Starting: Milk Soil/Sediment Starting: Starting: Milk Soil/Sediment Starting: Starting: Starting: Starting: Milk Soil/Sediment Starting: S		☐ Water Treatment Plant	t (WTP) Distribution (
Finishing: Starting: Net (M³) Air Charcoal Cartridge DMMENTS: (Cautions, etc.): Field Treatment: Preservatives added: Field Measurement: mR/hr. Radionuclide(s), if known: Rush/Priority (should be prearranged and have supervisory approval) VALYSIS REQUESTED (For questions, please call 510-620-29\$1) Gross Alpha Gross Beta Total Uranium Total Radium-226 Radium-228 Radium-229 Radium-229 Radium-220 Radium-220 Radium-220 Radium-221 Radium-222 Radium-223 Radium-225 Radium-226 Radium-227 Radium-227 Radium-228 Radium-228 Radium-228 Radium-229 Radium-229 Radium-229 Radium-220 Radium-220 Radium-221 Radium-221 Radium-222 Radium-223 Radium-224 Radium-225 Radium-225 Radium-226 Radium-227 Radium-228 Radium-228 Radium-228 Radium-229 Radium-230 Time Custody Received Time Custody Released Date Time Custody Released	Treated (circle one): C	hlorinated / Chloraminated / Chlor	rine Dioxide / Ozonated /	Peroxizone / Fluorida	ited / Coagulated / pH Adjuste
Finishing: Starting: Net (M²) Air Charcoal Cartridge Milk	1 may 18 h		- Ven		
Starting: Net (M*) Air Charcoal Cartridge Minute Min	Finishing:		Milk		·
Air Charcoal Cartridge Comments: Cautions, etc.	Starting:	and the same of th	☐ Wipes	· · · · · · · · · · · · · · · · · · ·	*- ')
Air Charcoal Cartridge DMMENTS: (Cautions, etc.)	Net (M ³)	<u> </u>	Radon Canis		Other: MATICAL SAMPLE
Field Treatment: Preservatives added:	Air Charcoal Cartridge		$\mathcal{C}_{\mathcal{C}}$	0	
Field Treatment: Preservatives added:	OMMENTS: (Cautions, e	r(c.)			
Field Measurement:mR/hr			Iced/Frozen	Othà	<u>rendere en de la comunitación d</u>
Rush/Priority (should be prearranged and have supervisory approval) NALYSIS REQUESTED (For questions, please call 510-620-2911) Gross Alpha Total Uranium Total Beta (LSC) NORM (Gamma) Total Radium Radium-226 Carbon-14 Isotopic Americium / Curium Radium-228 Radon-222 Stronthum-89, 90 Isotopic Uranium Other (Specify): Name (Print) Time Custody Received Name (Print) Date		-			
Gross Alpha Gross Beta Gamma Scan Total Uranium Total Radium Total Radium Radium-226 Radium-228 Radon-222 Garbon-14 Radon-222 Stronthum-59, 90 Isotopic Plutonium Isotopic Thorium Isotopic Thorium Isotopic Thorium Isotopic Uranium Isotopic Thorium Isotopic Thorium Isotopic Uranium Isotopic Uranium Isotopic Uranium Isotopic Thorium Isotopic Uranium Imperimentation Isotopic Thorium Isotopic Viranium Isotopic Plutonium Isotop	Rush/Priority (should be	prearranged and have superviso	ory approval)		
Total Uranium Total Radium Total Radium Carbon-14 Radium-226 Radium-228 Radon-222 Carbon-14 Radon-222 Carbon-14 Radon-222 Radon-223 Radon-222 Radon-224 Radon-225 Radon-225 Radon-225 Radon-226 Radon-227 Radon-227 Radon-228 Radon-229 Radon-229 Radon-230 Radon-230 Radon-230 Radon-255 Radon-255 Radon-250	ALYSIS REQUESTED	For questions, please call 510-62	20-2911)		
Total Radium Radium-226 Radium-228 Radium-228 Radon-222 Radon-222 Radon-222 Radon-222 Radon-222 Radon-223 Radon-222 Radon-224 Radon-225 Radon-225 Radon-225 Radon-226 Radon-227 Radon-227 Radon-228 Radon-229 Radon-229 Radon-229 Radon-229 Radon-229 Radon-220 Radon-230 Radon-220 Radon-230	Gross Alpha	☐ Gr	oss Beta	☐ Gamma Sca	1 N
Total Radium Radium-226 Radium-228 Radium-228 Radon-222 Radon-223 Radon-222 Radon-222 Radon-222 Radon-223 Radon-222 Radon-223 Radon-222 Radon-223	Total Uranium	☐ To	tal Beta (LSC)	☐ NORM (Gam	ma)
Radium-226 Radium-228 Radon-222 Other (Specify); Nickel 63 Date Name (Print) Date Name (Print) Date Name (Print) Date Name (Print) Name (Print) Date Date Name (Print) Date Date Name (Print) Date	Total Radium	☐ Trit	tium (³H)		*
Radium-228 Radon-222 Stronthum-89, 90 Isotopic Thorium Other (Specify); Nickels3 Iron-55 AIN OF CUSTODY Date Name (Print) Time Custody Received Date Name (Print) Date	•	☐ Ca	rbon-14		
Other (Specify); Date Name (Print) Date Date		☐ lod	line-131		
AIN OF, CUSTODY 5/7/3 Date Date Time Custody Received Date Time Custody Received Time Custody Released Date Date Date Date Date			N 3.77.	Isotopic Uran	ium
Date Name (Print) Time Custody Received Organization Date Name (Print) Time Custody Received Organization Time Custody Received Organization Date Time Custody Received Organization Date Organization			kel 63	☐ Iron-55	
Date Print Date Dat		Ton Hook			5/7/12
Time Custody Received Organization Date Name (Print) Date Time Custody Released Date Time Custody Received Date Time Custody Released Date Date Date Date Date Date Date		Name (Print)			
Date Time Custody Received Organization Date Date Organization Date Name (Print) Date Date Date	Time Custody Received		Signature	1/00l	Time Custody Released
Time Custody Received Organization Organization Signature Time Custody Released Name (Print) Dusus 13 Date	Date	Name (Print)			
Date Disco Date D		Organization	Signature		<u> </u>
10:30 DURIB / Jara Mala	5-8-13	\square \bigcirc \bigcirc \bigcirc			<u></u>
Lima Cuatedu Danahari Allan	10:30	DWRLP	,	idora Mala	Date
Time Custody Released	Time Custody Received	Organization	Signature		Time Custody Released
BORATORY REMARKS (Leave Blank) と Condition at Time of Receipt:	BORATORY REMARKS	(Leave Blank)			
☐ Acceptable ☐ Broken Container ☐ Leaked in Transit ☐ Improper Container	☐ Acceptable	☐ Broken Container	🛰 🖸 Leaked in Tra		☐ Improper Container
☐ Holding Time Exceed ☐ Sample Not Cooled ☐ Insufficient Sample		☐ Sample Not Cooled			
Preservatives/Carriers: Added While Sampling Added in Laboratory D Not Added D Not Applicable Not Applicable		g □ "Added in Laboratory	Not Added		□ Not Applicable



California Department of Public Health



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0263

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610 CA Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / April 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 4/10/2013

Result +/- CE Parameter Method MDA₉₅ Units Lab No: 13-0263-01 Sample ID: R 92270 Time Collected: 4/9/2013 09:57 Sampling Point: Diablo Creek Sample Type: Surface Water K-40 EPA 901.1 11.8 +/- 17.8 83.4 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	SAMPLE ANALYSIS (R		
Sanitation and Radiation Laboratories Branch		Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164	1 1 4.1	0-13	13-0263
Richmond, CA 94804 510-620-2911		ime Sampled	Serial Number
1510-020-2911		0957	R 92270
Collector Information	Reporting Info	rmation	
Name: Dept./Branch: TOM HOOK Dept./Branch: P.O. BIX 56	Name: Dept./Branch:		
Address: P.O. Box 56	Address:		
AVILA BRACKEN 17729	<i>y</i> 1001000.		
Telephone No.: (805) 545-4409	Telephone No.		
O	Billing Agency		
System Name / Facility: DIABLO CAFAL	DWFOB (WQCB() DTSC
Sampling Point (s):	DWTPB DEMB	☐ FDB ☐ D	WR CDFG
System No.:	CI EMID	C Other (Specia	37
TYPE OF SAMPLE (Check all applicable boxes)			
	Surface Wa	ter 🗆	Wastewater
☐ Raw ☐ Water Treatment Pla	ent (WTP) Distribution	System	Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Ch	lorine Dioxide / Ozonated	/ Peroxizone / Fluorid	ated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	2 Seawater		Sludge (Semi-solid Samples)
	Milk		Soil/Sediment
Finishing:	- #=		
Starting:	_ Wipes		Biota (Type):
Net (M³)	Radon Can	ister \Box	Other:
☐ Air Charcoal Cartridge			
COMMENTS: (Coutions etc.)			en e
COMMENTS: (Cautions, etc.): Field Treatment: Preservatives added:	Ped/Frozen:	Oth	er:
		le/e) if known:	
☐ Field Measurement:mR/h		ic(s), ii kilowii.	
Rush/Priority (should be prearranged and have superv			
ANALYSIS REQUESTED (For questions, please call 510	-620-2911) 🚶		
☐ Gross Alpha ☐ (Gross Beta ∮	Gamma Sca	an
	Total Beta (LSC)	NORM (Gar	nma)
☐ Total Radium	Tritium (³ H) 🖁	Isotopic Am	ericium / Curium
☐ Radium-226	Carbon-14	Isotopic Plu	tonium
☐ Radium-228	lodine-131	☐ Isotopic The	orium
☐ Radon-222	Strontium-89, 90	Isotopic Ura	inium
Other (Specify);	Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY			
1. 4/a/1-3 Tota Hook Name (Print)		\ /	4/9/13
Date Name (Print)	145	1/2/	Date 177/77
Time Custody Received Organization	Signature	7	Time Custody Released
2.			
Date Name (Print)			Date
Time Custody Received Organization	Signature		Time Custody Released
3. 4-10-13 1/A	and the state of		D-4-
Date Name (Print) DUNC	B 1)	. DAM ON	Date Date
Time Custody Received Organization	Signature	Mor will to	Time Custody Released
LABORATORY REMARKS (Lawy Black)			
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	= 0.01 MR/Y	R	
☐ Acceptable ☐ Broken Containe			☐ Improper Container
Holding Time Exceeded Sample Not Cool	led 🗆 Insufficient	Sample	
B. Preservatives/Carriers:			
 Added While Sampling Added in Laborat 	tory 🖸 Not Added		□ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0265

Investigator: Denny Brewer

SLO Co. EHS

Requestor: Roger Lupo

RHB

2156 Sierra Way,

93401

CDPH - RHB, 1500 Capitol Av., MS 7610

CA

San Luis Obispo CA

Sacramento

95814-5006

Phone Number: (805) 781-5555

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / April 2013

Samples Received by Lab: 4/12/2013

System No:

Billing Agency: RHB

Units

Parameter

Method

Result +/- CE

MDA 95

Lab No: 13-0265-01

Sample ID:

R 96017

Time Collected: 4/9/2013

09:57

Sampling Point: Diablo Creek

Tritium

EPA 906.0

Sample Type: Raw Water

-81.6 +/- 152

264

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

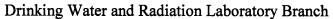
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Drinking Water and Radiation Laboratory Branch	Date Received Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	/ Date & Time Sampled 13-00 (545 15 15 15 15 15 15 15
510-620-2911	4/9/13-0957 R 96017
Collector Information	Reporting Information
Name: Tourthook	Name:
Dept./Branch: P.O. BOX 5% Address: AVILA BEACIL, CA 9-4124	Dept./Branch: Address:
Address. AVILA BEACH, CA THEY	
Telephone No.: (805) 545 4409	Telephone No.:
Sample Information System Name / Facility: DIABLO CASEK	Billing Agency DWFOB() RHB RWQCB() DTSC
Sampling Point (s):	D DWFOB() D RHB D RWQCB() D DTSC D DWTPB D FDB D DWR D CDFG
552	☐ EMB ☐ Other (Specify)
System No.: TYPE OF SAMPLE (Check all applicable hoves)	<u> </u>
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater	Surface Water
☐ Raw ☐ Water Treatment Plant (WTP)	
The Control of the Co	ide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk ☐ Soil/Sediment
Starting:	☐ Wipes ☐ Biota (Type):
3	Radon Canister Other: MINNI SAHPLE
□ Air Charcoal Cartridge	Tradori oamsio
COMMENTS: (Cautions, etc.):	
	Ced/Frozen: Other:
	Radionuclide(s), if known:
Rush/Priority (should be prearranged and have supervisory appro	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	The contract of the contract o
☐ Gross Alpha ☐ Gross Beta	
☐ Total Uranium ☐ Total Beta	LSC) NORM (Gamma)
☐ Total Radium	
☐ Radium-226 ☐ Carbon-14	☐ Isotopic Plutonium
□ Radium-226 □ Carbon-14 □ Radium-228 □ Iodine-131	☐ Isotopic Plutonium ☐ Isotopic Thorium
□ Radium-226 □ Carbon-14 □ Radium-228 □ lodine-131 □ Radon-222 □ Strentium-8	□ Isotopic Plutonium □ Isotopic Thorium 99, 90 □ Isotopic Uranium
□ Radium-226 □ Carbon-14 □ Radium-228 □ lodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63	□ Isotopic Plutonium □ Isotopic Thorium 99, 90 □ Isotopic Uranium
□ Radium-226 □ Radium-228 □ Radon-222 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. 4/9//3	Isotopic Plutonium Isotopic Thorium Isotopic Uranium
□ Radium-226 □ Carbon-14 □ Radium-228 □ lodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Iron-55
□ Radium-226 □ Radium-228 □ lodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. □ 1/9//3 □ Date Name (Print)	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Iron-55
Radium-226 Radium-228 Radon-222 Strentium-8 Other (Specify); CHAIN OF CUSTODY Name (Print) Time Custody Received Organization Carbon-14 I dodine-131 Strentium-8 Nickel-63	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Iron-55 Iron-55 Iron-55 Iron-55
□ Radium-226 □ Radium-228 □ Iodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1.	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Iron-55
Radium-226 Radium-228 Radon-222 Strentium-8 Other (Specify); Nickel-63 CHAIN OF CUSTODY Name (Print) Time Custody Received Name (Print) Time Cystody Received	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Iron-55 Iron-55 Iron-55 Iron-55
□ Radium-226 □ Radium-228 □ Iodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. Date Name (Print) Time Custody Received Organization 2. Date Name (Print) Time Custody Received Organization 3. Date Name (Print)	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55 4/g//3 Date Time Custody Released Date Time Custody Released
Radium-226 Radium-228 Radon-222 Strentium-8 Other (Specify); Nickel-63 CHAIN OF CUSTODY Name (Print) Time Custody Received Name (Print) Time Custody Received Name (Print) Name (Print) Name (Print) Name (Print) Name (Print)	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55 Iron-
Radium-226 Radium-228 Radon-222 Strontium-8 Other (Specify); Nickel-63 CHAIN OF CUSTODY Name (Print) Time Custody Received Name (Print) Time Custody Received Name (Print) Time Custody Received Name (Print) Name (Print) Name (Print) Time Custody Received Organization Name (Print) Time Custody Received Organization Name (Print) Time Custody Received Organization	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55
□ Radium-226 □ Radium-228 □ Iodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. Date	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55
Radium-228	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55 Iron-5
Radium-226 Radium-228 Radon-222 Strentium-8 Other (Specify); Nickel-63 CHAIN OF CUSTODY Date Name (Print) Time Custody Received Organization Name (Print) Condition at Time of Receipt:	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55
□ Radium-228 □ lodine-131 □ Radon-222 □ Strentium-8 □ Other (Specify); □ Nickel-63 CHAIN OF CUSTODY 1. Date Name (Print) Time Custody Received Organization 2. Date Name (Print) Time Custody Received Organization A Name (Print) Date 3-30 Time Custody Received Organization A Name (Print) Date Broken Container	Isotopic Plutonium Isotopic Thorium Isotopic Uranium Isotopic Uranium Iron-55 Iron-5



California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0303

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach Phone Number: 805-545-4409 Sacramento CA

95814-5006

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / April 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 4/23/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0303-01	Sample ID: R 96027 Sample Type: Seawater	Time Collected: 4/22/2013	09:45 Sampling Point	: Outfall Water
K-40	EPA 901.1	368 +/- 23.0	83.6	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	FOR SAMPLE AN			
Drinking Water and Radiation Laboratory Bran. 850 Marina Bay Parkway, G164	ch	Date Recei	ved 3	Lab No. (Leave Blank)
Richmond, CA 94804		Date & Time S	ampled	Serial Number
510-620-2911	* 4	1/22/13-09		/R 96027
Collector Information	* D-	porting Informati		
Name: Total Hook Dept./Branch: P.C. 31 × 56 Address: AULA BEACH, CA 93424	Na	ime:		
Dept./Branch: P.C. 31 \ 56 Address: 4144 86001 (4 93424	De	ept./Branch: ldress:		
AVILA BIACAL, CA		u1033.	Hand.	
Telephone No.: (805) 545-4409		lephone No.:		
Sample Information System Name / Facility: DCPP DUT FAUL	(S)	lling Agency		
Sampling Point (s):	:41		⊒RHB □RV ⊒FDB □DV	VQCB() ☐ DTSC VR ☐ CDFG
(2)(1)	-KI		· ·	y)
System No.:				
TYPE OF SAMPLE (Check all applicable boxes)	* 			
☐ Drinking Water ☐ Groundwater ☐ Raw ☐ Water Treatm		Surface Water Distribution System		Wastewater Point of Use (POLI)
☐ Treated (circle one): Chlorinated / Chloraminat	· · · · · · · · · · · · · · · · · · ·		~ ·	
	* 7			
☐ Air Filters Date/T	₫ \	Seawater		Sludge (Semi-solid Samples)
Finishing:	39	Milk		Soil/Sediment
Starting:		Wipes		Biota (Type):
Net (M ³)		Radon Canister		Other:
☐ Air Charcoal Cartridge				
COMMENTS: (Cautions, etc.);				
☐ Field Treatment: Preservatives added:		d/Frozen:	Othe	
☐ Field Measurement:				
Rush/Priority (should be prearranged and have	797.			
ANALYSIS REQUESTED (For questions, please of				
☐ Gross Alpha	Gross Beta	•	Gamma Scar	
☐ Total Uranium	☐ Total Beta (LS		NORM (Gam	
☐ Total Radium	☐ Tritium (³H)		☐ Isotopic Ame	
☐ Radium-226	☐ Carbon-14		☐ Isotopic Ame	
	, y		•	
□ Radium-228	☐ lodine-131		☐ Isotopic Thor☐ Isotopic Urar	
Radon-222	Strontium-89, 9	The second second	•	lium
Other (Specify);	u Nickei-03		☐ Iron-55	
CHAIN OF COSTODY 1. 4722/13 Ton Hook				4/22/13
Date Name (Print)			//	Date
Time Custody Received Organization	Si	gnature	Del	Time Custody Released
2		griature //		
Date Name (Print)	0.5 7.5 8.6 8.7 8.7			Date
Time Custody Received Organization	Si	gnature		Time Custody Released
3. $\frac{4-33-13}{\text{Date}}$ Name (Print)				Date
3:45 Name (Pill) DINF	RLB_	Vilon	a Welt	
Time Custody Received Organization		gnature		Time Custody Released
LABORATORY REMARKS (Leave Blank)	€ 0.01 MK	/Hp		
A. Condition at Time of Receipt:				
☐ Acceptable ☐ Broken C☐ Holding Time Exceeded ☐ Sample I	Container Not Cooled	Leaked in Transit Insufficient Sampl		☐ Improper Container
B. Preservatives/Carriers:				
	Laboratory	Not Added		□ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0304

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

CA

System No:

Site/Project Name: Diablo Canyon NPP / April 2013

Billing Agency: RHB

Samples Received by Lab: 4/23/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0304-01

Sample ID: R 92262 Sample Type: Seawater

Time Collected: 4/22/2013 09:45

Sampling Point: Diablo Canyon

Tritium

EPA 906.0

2.04 +/- 154

264

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

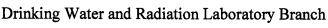
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	The state of the s	ANAL 1313 (Radiochemical)	Lab No. (Leave Blank)
Sanitation and Radiation I		Date Received	- 13 02011
850 Marina Bay Parkway, G Richmond, CA 94804	i1164	4-45-13	12-0209
510-620-2911		Date & Time Sampled	Serial Number
0.002020		4/22/16-0745	R 92262
Collector Information	V. 1	Reporting Information	
Name: TOM HE	OOK	Name:	
Dept./Branch: PO BOX	56	Dept./Branch:	
Address: ALICA B	SEACH, CA 93424	- Control of the cont	
Telephone No.: (80)	75-4409	Telephone No.:	1
Sample Information		Billing Agency	
System Name / Facility:	DOPP OUTFALL		RWQCB() DTSC
Sampling Point (s):	DIT	F	DWR CDFG
System No.:	OUI	Durier (Spe-	-ily)
TYPE OF SAMPLE (Check	all applicable hoves)		See
		Surface Water	☐ Wastewater
☐ Drinking Water ☐ Raw	GroundwaterWater Treatment Plant (WTP)) 📮 Distribution System	Point of Use (POU)
Treated (circle one): Ch	lorinated / Chloraminated / Chlorine Di	oxide / Ozonated / Peroxizone / Fluor	idated / Coagulated / pH Adjusted
1100000 (0.1010 0.107)			**************************************
☐ Air Filters	Date/Time		Sludge (Semi-solid Samples)
Finishing:			☐ Soil/Sediment
Starting:		3400	☐ Biota (Type):
Net (M³)	***	Radon Canister	Other: 7/2/7/19 SAMPLE
☐ Air Charcoal Cartridge			
COMMENTS: (Cautions, et	tc.):		
☐ Field Treatment: Pres	ervatives added:		ther:
☐ Field Measurement:	mR/hr 22	Radionuclide(s), if known:	1
☐ Rush/Priority (should be	prearranged and have supervisory ap	proyal)	
ANALYSIS REQUESTED	For questions, please call 510-620-291	10	
☐ Gross Alpha	☐ Gross Bo		can
☐ Total Uranium	☐ Total Be	1. A. A. B.	amma)
☐ Total Radium	Tritium (mericium / Curium
☐ Radium-226	☐ Carbon-	3	
	Q lodine-1	7	
Radium-228	☐ Strontiur		
Radon-222	6 - 6 - 5		
Other (Specify);	DCPP Q Nickel-6	g won-se	
CHAIN OF CUSTODY	TOM HOOK X 3		4/12/12
1. <u>4/7 2//3</u> Date	Name (Print)		Date
0745	PGPE	1 Jan 1 Bul	
Time Custody Received	Organization	apprature i	Tape Custody Released
2. Date	Name (Print)		Date
	(1117)		11/1 240 F
Time Custody Received	Organization	Signature	Time Custody Released
3. 4-23-13 Date	Name (Print)		Date
3:45	DWRLB	Willows M. Ole	<u> </u>
Time Custody Received	Organization	Signature	Time Custody Released
LABORATORY REMARKS	Vicayo Blank		
A. Condition at Time of Re	ceipt:	5	
- Acceptable	☐ Broken Container	☐ Leaked in Transit	☐ Improper Container
☐ Holding Time Exceed	ded Sample Not Cooled	☐ Insufficient Sample	
B. Preservatives/Carriers:	C. Addad is Laboratori	D Not Added	i,* O Not Applicable
\□ Added While Samoli	ing Q Added in Laboratory	A TAUL AUGU	w rays (Abhilliania



California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0261

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach Phone Number: 805-545-4409

Sacramento CA Phone Number: 916-440-7955

95814-5006

Site/Project Name: Diablo Canyon NPP / April 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 4/10/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0261-01	Sample ID: R 92273 Sample Type: Drinking Water	Time Collected: 4/9/2013	09:34 Sampling Point	:: Bio Lab Sink
K-40	EPA 901.1	35.5 +/- 13.0	59.4	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SA	AMPLE ANALYSIS (Radiochemical)
Sanitation and Radiation Laboratories Branch 850 Marina Bay Parkway, G164	Date Received Lab No. (Leave Blank)
Richmond, CA 94804	4-10-13 3-0201
510-620-2911	Date & Time Sampled Serial Number R 92273
Collector Information	Reporting Information
Name: Ton Hook	Name:
Dept./Branch: 80 80 57 57 Address:	Dept./Branch: Address:
AULA BACATICA TOTES	Madiess.
Telephone No.: (205) 545-4409	Telephone No.:
Sample Information	Billing Agency
System Name / Facility: B/O LAB Sampling Point (s):	DWFOB() RHB RWQCB() DTSC
Jamping Form (s).	DWTPB D DWR D CDFG EMB D Other (Specify)
System No.:	G Cutel (Specily)
TYPE OF SAMPLE (Check all applicable boxes)	
☑ Drinking Water ☐ Groundwater	☐ Surface Water ☐ Wastewater
☐ Raw ☐ Water Treatment Plant	t (WTP) Distribution System Point of Use (POU)
Treated (circle one): Chlorinated / Chloraminated / Chlorinated / Chlori	rine Dioxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pHtAdjusted
Air Filters Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:	Milk Soil/Sediment
Starting	Wipes U Biota (Type):
Net (M³)	Radon Canister
Air Charcoal Cartridge	Radon Canister U Other.
1 All Citatoda Cartiloge	
COMMENTS: (Cautions, etc.):	
Field Treatment: Preservatives added:	Other:
Field Measurement:mR/hr	// 2 // W.
Rush/Priority (should be prearranged and have supervisor	ory approval)
NALYSIS REQUESTED (For questions, please call 510-62	20_2011\square
	oss Beta Gamma Scan
그 사이와 아이들은 얼마나 가는 그를 보는 것이 없었다.	
	ckel-63
HAIN OF CUSTODY	
Date Name (Print)	$\frac{4/g/3}{\text{Date}}$
1934 Rock	17DD
Time Custody Received Organization	Signature Time Custody Released
Date Name (Print)	Date
🗽 is <u></u>	
Time Custody Received Organization	Signature Time Custody Released
Date Name (Print)	Date
7:20 Time Custody Received Organization DWRLB	- Quelona Malle
Time Custody Received Organization —	Signature Time Custody Released
ABORATORY REMARKS (Leave Blank)	n. MO 11.0 -
. Condition at Time of Receipt: 40. (Acceptable Broken Container	
☐ Holding Time Exceeded ☐ Sample Not Cooled	Leaked in Transit
. Preservatives/Carriers:	
☐ Added While Sampling ☐ Added in Laboratory	/ 🖸 Not Added. 🗅 Not Applicable ,
A1233136331363431311313432434343434343434343434343434	



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0262

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach CA Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / April 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 4/10/2013

Parameter Method Result +/- CE MDA 95 **Units** Lab No: 13-0262-01 Sample ID: R 96018 Time Collected: 4/9/2013 09:34 Sampling Point: Bio Lab Sink Sample Type: Drinking Water Tritium EPA 906.0 -71.4 +/- 152 264 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

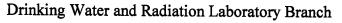
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	n da <u>er en da asseção e</u> les francies
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804	Date Received (1-10-13)	Lab No (Leave Blank)
510-620-2911	Date & Time Sampled / 4/9//3 — 093 4	R 96018
Collector Information Name: Dept./Branch: Address: P.O. BOX Sto AULA BEACH, CA 93424	Reporting Information Name: Dept./Branch: Address:	
	Rilling Agency	<u> </u>
Sample Information System Name / Facility: Sampling Point (s): System No.: System No.:	Billing Agency DWFOB() RHB FDB FDB FDB FDB FDB FDB FDB FDB FDB FD	
TYPE OF SAMPLE (Check all applicable boxes)		
X	Distribution System	Wastewater Point of Use (POU)
	<u>*************************************</u>	Sludge (Semi-solid Samples)
Finishing:		Soil/Sediment
Starting:		Biota (Type):
Net (M³)	Radon Canister	Other: MATIVIM SAMPA
☐ Air Charcoal Cartridge	'	
	Negation 1988	er:
☐ Rush/Priority (should be prearranged and have supervisory approv		
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
Gross Alpha	3	
☐ Total Uranium ☐ Total Beta (1	
☐ Total Radium ☐ Tritium (³H)	🏚 🗠 e e e e e e e e e e e e e e e e e e	ericium / Curium
☐ Radium-226 ☐ Carbon-14		
□ Radium-228 □ lodine-131	☐ Isotopic The	
☐ Radon-222 ☐ Strontium-8	9, 90 🔲 Isotopic Ura	n ium
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY 1. 4/9//3 Date 934 Name (Print) Time Custody Received Organization 2.	Signature	Date DD Time Custody Released
Date Name (Print)		Date
3. $\frac{4.10-(3)}{\text{Date}}$ Name (Print)	Signature	Time Custody Released
<u> 3:30</u> DURLB	Julona M. a	li
		Time Custody Released
	OI MR/HR Leaked in Transit Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers: ☐ Added While Sampling ☐ Added in Laboratory [D Not Added	□ Not Applicable



California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0190

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

93424

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / March 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 3/12/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0190-01	Sample ID: R 96117 Sample Type: Seawater	Time Collected: 3/11/2013	07:30 Sampling Poin	t: Outfall Water
K-40	EPA 901.1	357 +/- 18.2	62.5	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	E.ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received 3-12-13	Lab No. (Leave Blank)
Richmond, CA 94804	Date & Time Sampled	Serial Number
510-620-2911	3/11/13 0730	R 96117
Collector Information	Reporting Information	
Name: Ton Hook Dept./Branch: 22 AN Ste	Name: Dept./Branch:	
Address: AVILA BEACH, CA 93424	Address:	
Telephone No.: (305) 54/5 - 44/09	Telephone No.:	
Sample Information System Name / Facility: DCPP DUT FALL	Billing Agency	
System Name / Facility: DC PF DO FACE Sampling Point (s):	1988 T	RWQCB() DTSC
MIT	DWTPB FDB C Spe	DWR CDFG
System No.:		
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater	☐ Surface Water	☐ Wastewater
		Point of Use (POU)
Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	xide / Ozonated / Peroxizone / Fluori	dated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater	☐ Sludge (Semi-solid Samples)
Finishing:	44.34	☐ Soil/Sediment
Starting:	☐ Wipes	☐ Biota (Type):
Net (M³)	- Age	Other:
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):	/	
☐ Field Treatment: Preservatives added:	iced/Frozen:Ot	her:
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
☐ Rush/Priority (should be prearranged and have supervisory appro		
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
☐ Gross Alpha ☐ Gross Beta	a Gamma S	can *
☐ Total Uranium ☐ Total Beta	(LSC) NORM (G	amma)
☐ Total Radium ☐ Tritium (³H	I). Isotopic A	mericium / Curium
☐ Radium-226 ☐ Carbon-14	☐ Isotopic PI	utonium
☐ Radium-228 ☐ Iodine-131	☐ Isotopic Th	norium
☐ Radon-222 ☐ Strontium-	89, 90 🔲 Isotopic Ui	ranium
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
CHAIN OF GUSTODY 13/11/13		3/11/13
Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
2		
Date Name (Print)		Date
Time Custody Received Organization 3. 3-12-13 UA	Signature	Time Custody Released
Date Name (Print)	and an all	Date
Time Custody Received Organization	Signature Dulovia M. au	Time Custody Released
		THIC OUSLOUY INCREASED
LABORATORY REMARKS (Leave Blank) CO.01	MR/HR	
☐ Acceptable ☐ Broken Container ☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Leaked in Transit☐ Insufficient Sample	☐ Improper Container
	· moundent oampie	
B. Preservatives/Carriers: Added While Sampling Added in Laboratory	. □ Not Added	□ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0191

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach CA

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / March 2013

Samples Received by Lab: 3/12/2013

System No: Billing Agency: RHB

Sample ID:

Parameter

Lab No: 13-0191-01

Method

Result +/- CE

MDA 95

Units

Sample Type: Seawater

R 92356

Time Collected: 3/11/2013 07:30

Sampling Point: Outfall Water

Tritium

EPA 906.0

-18.3 +/- 151

264

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SA	AMPLE ANALYSIS (Radiochemica	,al)
Sanitation and Radiation Laboratories Branch	Date Received	Lab No. (Leave Blank) ***
850 Marina Bay Parkway, G164 Richmond, CA 94804	3-12-13	
510-620-2911	Date & Time Sampled	**
	3/11/13-0730	o R 92356
Collector Information	Reperting Information	
Name: Tom Hook Dept./Branch: Po Box 576 Address: AVIA BEAGICA 93424	Name:	
Dept./Branch: Po Box 5%	Dept./Branch:	
Address: AVIA BRACIFA 93424	A Production	
Telephone No.: /205 3/5 - 4409	gelephone No.:	A T
Sample Information	Billing Agency	
System Name / Facility: DUPP DUTFALL	DWFOB() RHB	
Sampling Point (s):	DWTPB Q FDB	
System No.:	☐ EMB ☐ Othe	er (Specify)
TYPE OF SAMPLE (Check all applicable boxes)		
	Surface Water	☐ Wastewater
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant.	(WTP) Distribution System	Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlor		
	257	
□ Air Filters Date/Time	Seawater	Sludge (Semi-solid Samples)
Finishing:	Milk	□ Soil/Sediment
Starting:	Wipes	☐ Biota (Type):
Net (M³)	Radon Canister	Other: MINUH SAMPLE
☐ Air Charcoal Cartridge		and the second s
COMMENTS: (Cautions, etc.):		
Field Treatment: Preservatives added:	iced/Frozen:	Other:
		the Control of the Co
☐ Field Measurement:mR/hr	Radionuclide(s), if known	n: <u>Totalon</u>
Rush/Priority (should be prearranged and have supervisor		
ANALYSIS REQUESTED (For questions, please call 510-62		
and the second s		ımma Scan
☐ Total Uranium ☐ Total		DRM (Gamma)
		topic Americium / Curium
□ Radium-226 □ Ca		topic Plutonium
		topic Thorium
	and the second s	otopic Uranium
	cket-63 🚨 Iron	
CHAIN OF CUSTODY		
1. 2/11/13 Tour Horak		3/11/13
Date Name (Print)		Date
Time Custody Received Constitution	Turnghure 1	Time Custody Released
2		Time outloy (tolate)
Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
3. 2-12-13 UA	Signature	HIHR Cusiouy Neleased
Date Name (Print)	7	Date
- 10:30 DUKLIS		Time Custody Released
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank)	jana 197	
A. Condition at Time of Receipt:	D. Carballa Taradi	Contains
☐ Acceptable ☐ Broken Container ☐ Holding Time Exceeded ☐ Sample Not Cooled	Leaked in Transit	☐ Improper Container
B. Preservatives/Carriers:	y Not Added	D Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0181

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Phone Number: 805-545-4409

Sacramento CA 95814-5006

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / March 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 3/7/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0181-01

Sample Type: Surface Water

Sample ID: R 92269 Time Collected: 3/6/2013

15:00

Sampling Point: Diablo Creek

K-40

EPA 901.1

7.59 + / - 16.2

75.8

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

Sanitation and Radiation Laboratories Branch	PLE ANALYSIS (Radiochemica Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164		
Richmond, CA 94804	3-7-13	12-0181
10-620-2911	Date & Time Sampled	Serial Number
ollector Information	3/6/13 1500	R 92269
	Reporting Information	
12 x . 1-41 \N	Name: Dept./Branch:	
ept./Branch: P.O. BOX 56 ddress: P.O. BOX 56 AVILLA BEAGI, CA 93424	Address:	
MULA BEACHTON		
elephone No.:(3)x 545-4409	Telephone No.:	
ample Information ystem Name / Facility: D/ABW CAFFAL	Billing Agency	
ampling Point (s):	DWFOB() RHB	☐ RWQCB() ☐ DTSC
552	DWTPB DFDB	DWR CDFG
stem No.:	☐ EMB ☐ Other (Specify)
PE OF SAMPLE (Check all applicable boxes)		
Drinking Water	Surface Water	T
Raw Water Treatment Plant (WT	P) 🖅 Distribution System	☐ Wastewater ☐ Point of Use (POU)
Treated (circle one): Chlorinated / Chloraminated / Chlorine D	Dioxide / Ozonated / Peroxizone / F	Juoridated / Coagulated / nH Adjust
	Seawater	Sludge (Semi-solid Sample
Finishing:	Milk	☐ Soil/Sediment
Starting:	Wipes	☐ Biota (Type):
Net (M³)	Radon Canister	☐ Other:
Air Charcoal Cartridge		
MATURA (O		
DMMENTS: (Cautions, etc.):		
Field Treatment: Preservatives added:	/(ced/Frozen:	Other:
Field Measurement:mR/hr	Radionuclide(s), if known:	
Rush/Priority (should be prearranged and have supervisory ap	proval)	*
ALYSIS REQUESTED (For questions, please call 510-620-291	11)	
Annual Action		
		(Gamma)
_ to the second of the second		c Americium / Curium
Dedition 000	— .оо.ор.	c Plutonium
Radium-228 ☐ Iodine-13	31 🖳 lsotopi	c Thorium
Radon-222	n-89,90 🔲 Isotopi	c Uranium
Other (Specify);		
AIN OF ÇUŞTODY		
Date Name (Print)		3/4/13
Date Name (Print)		Date
Time Custody Received Organization	Signature	
	Orginature .	Time Custody Released
Date Name (Print)		Date
Date Name (Print)		Date
Date Name (Print) Time Custody Received Organization	Signature	Date Time Custody Released
Date Name (Print)	Signature	Time Custody Released
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Date Name (Print) Time Custody Received Organization Date Name (Print) Name (Print) Organization Organization Organization ORATORY RÉMARKS (Leave Blank) Condition at Time of Receipt:	signature works M. C.	Time Custody Released Date
Date Name (Print) Time Custody Received Organization Date Name (Print) Name (Print) Organization Organization ORATORY REMARKS (Leave Blank) Condition at Time of Receipt: Acceptable. Date Name (Print) Organization Name (Print) Organization ORATORY REMARKS (Leave Blank) ORATORY REMARKS (Leave Blank)	Signature Works M. (C	Time Custody Released Date
Date Name (Print) Time Custody Received Organization Date Name (Print) Name (Print) Time Custody Received Organization Organization ORATORY REMARKS (Leave Blank) Condition at Time of Receipt: D Acceptable. D Broken Container	signature works M. C.	Date Time Custody Released Time Custody Released



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0182

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach Phone Number: 805-545-4409 Sacramento CA

95814-5006

Site/Project Name: Diablo Canyon NPP / March 2013

System No:

Billing Agency: RHB

Phone Number: 916-440-7955

Samples Received by Lab: 3/7/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0182-01

R 96101 Sample ID:

Time Collected: 3/6/2013

15:00

Sampling Point: Diablo Creek

Sample Type: Surface Water

Tritium

EPA 906.0

-51.0 +/- 152

264

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received	Lab No. (Leave Blank)
Richmond, CA 94804	, Date, & Time Sampled	Serial Number
510 520-2911	3/6/13 1500	R 96101
	1 - 1 1 1	1 1 30TOT
Collector Information	Reporting Information	
Name: Tom Hook Dept./Branch: Q 2005	Dept./Branch:	
Dept./Branch: P.O. B. S. S. Address: AVIA BEACH, CA 93424	Address:	10 miles (10 mil
AVIA BEACH, CA 13929		
Telephone No.: (XO) ISYS - 17499	Telephone No.:	
Sample Information System Name / Facility: DIABLO CIFEL	Billing Agency	7
	* [H M M	□ RWQCB() □ DTSC □ DWR □ CDFG
Sampling Point (s):	1 —	DWR CDFG
System No.:	☐ EMB ☐ Other (S	pecity)
TYPE OF SAMPLE (Check all applicable boxes)		
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WTP)	Surface Water Distribution System	☐ Wastewater .☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chlorinated / Chlorine Diox	ide / Ozonated / Peroxizone / Flu	ondated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater	☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk	☐ Soil/Sediment
Starting:	☐ Wipes	☐ Biota (Type):
Net (M ³)	Radon Canister	1 Other Tritium Sample
	- Nadon Jamoto.	Company of the Compan
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):		But have been supported to the support of the support
	ced/Frozen:	Other:
	Radionuclide(s), if known:	
Rush/Priority (should be prearranged and have supervisory appre		
	Å .	<u> </u>
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	<i>i</i>	
☐ Gross Alpha ☐ Gross Beta	Table 1	
☐ Total Uranium ☐ Total Beta	-	
☐ Total Radium ☐ Tritium (³)	Isotopic □ Isotopic	: Americium / Curium
☐ Radium-226 ☐ Carbon-14	☐ Isotopic	Plutonium
☐ Radium-228 ☐ lodine-131	☐ Isotopic	: Thorium
□ Radon-222 □ Strentium-	89, 90	Uranium
Other (Specify); Nickel-63		a
1. 3/6/13 Town Hook		3(6/13
Date Name (Print)	a last	Date 1700
	Signature	Time Custody Released
Time Custody Received Organization	Signature /	A line Ouslody (Clouded
Date Name (Print)	3,6	Date
Time Custody Received Organization	Signature	Time €ustody Released
Date Name (Print)		Date
11:30 1:30 KC12	Dulono. W. Ele	
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank)	MR/HR	
A. Condition at Time of Receipt:	□ Leaked in Transit	☐ Improper Container
Acceptable Broken Container Holding Time Exceeded Sample Not Cooled	Insufficient Sample	_ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
B. Preservatives/Carriers:		□ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0179

Investigator: Tom Hook

RHB

93424

Requestor: Roger Lupo

RHB

P O Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach Phone Number: 805-545-4409

Sacramento

95814-5006

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / March 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 3/7/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0179-01

Sample Type: Drinking Water

Sample ID:

R 96013

Time Collected: 3/6/2013

14:13

Sampling Point: Bio Lab Sink

K-40

EPA 901.1

17.5 +/- 17.3

80.7

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received	Lab No. (Leave Blank)
Richmond, CA 94804	/ Date & Time Sampled	Serial Number
510-620-2911	3/6/13-14/3	R 96013
Collector Information	Reporting Information	
Name: Ton Hook	Name:	
Dept./Branch: P.O. Box 570 Address: ANUA ELACH, CA 93424	Dept./Branch: Address:	
Telephone No.: (205) 545-4409	Telephone No.:	
Sample Information System Name / Facility: PLO LAB	Billing Agency	
	DWFOB() RHB	
Sampling Fount (s). W1		DWR CDFG
System No.:	a cine (ope	Oity)
TYPE OF SAMPLE (Check all applicable boxes)	**************************************	
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WTP)	☐ Surface Water ☐ Distribution System	☐ Wastewater
Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox		
Treated (dicie one). Chlorinated / Chloratinated / Chlorine blox		
☐ Air Filters Date/Time		☐ Sludge (Semi-solid Samples)
Finishing:	☐ Milk	☐ Soil/Sediment
Starting:	☐ Wipes	☐ Biota (Type):
Net (M ³)	Radon Canister	Other:
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):		and the second of the second o
☐ Field Treatment: Preservatives added:	iced/Frozen:O	her:
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
☐ Rush/Priority (should be prearranged and have supervisory appro	No. of the second secon	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
☐ Gross Alpha ☐ Gross Beta		can
☐ Total Uranium ☐ Total Beta	7	
☐ Total Radium ☐ Tritium (³H	St	mericium / Curium
☐ Radium-226 ☐ Carbon-14	•	
☐ Radium-228 ☐ Iodine-131	☐ Isotopic T	
☐ Radon-222 ☐ Strontium-8	· ·	
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY		1. 1-
1. 3/6/13 JOH HOOK		3/6/13
Date Name (Print)	1/2/	Date 1700
Time Custody Received Organization	Signature	Time Custody Released
Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
3. <u>3-2-13</u> <u>VA</u>	70-	Date
Date 13:30 Name (Print) DWRLB	Julionia M. all	Date
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) 4	OI MR/HR	
A. Condition at I line of Receipt:		D Improve Code
□ Acceptable · □ Broken Container □ Holding Time Exceeded □ Sample Not Cooled	☐ Leaked in Transit☐ Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers: Added While Sampling Added in Laboratory	, □ Not Added	☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0180

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610 95814-5006

Avila Beach

93424

Sacramento CA Phone Number: 916-440-7955

Phone Number: 805-545-4409

Site/Project Name: Diablo Canyon NPP / March 2013

Billing Agency: RHB

Samples Received by Lab: 3/7/2013

Parameter

System No:

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0180-01

Sample ID:

R 96003

Time Collected: 3/6/2013

14:13

Sampling Point: Bio Lab Sink

Sample Type: Drinking Water

Tritium

EPA 906.0

-88.4 +/- 152

264

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch	Date Received *	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sampled	Serial Number
510-620-2911	3/6/13-1/4/3	R 96003
Collector Information	Reporting Information	
Name: The Hook	Name:	€ The state of the state of th
Dept./Branch: Po Bx 56	Dept./Branch: Address:	보이 보이 있는 사람들은 사람들이 되었다.
	Addiess.	
Telephone No. (25) 845 4409	Telephone No.:	
Sample Information System Name / Facility: 300 LAB	Billing Agency	/QCB() DTSC
System Name / Facility: (ACC) Sampling Point (s):	DWFOB() RHB RW DWTPB FDB DW	
$1)\omega 1$	☐ EMB ☐ Other (Specify	
System No.:	No. of the second secon	
TYPE OF SAMPLE (Check all applicable boxes)	Surface Water □	Wastewater
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WTP)		Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Peroxizone / Fluoridat	ed / Coagulated / pH Adjusted
	~	Sludge (Semi-solid Samples)
		Soil/Sediment
Finishing:		Biota (Type):
Starting:		Other: TRATIUM SATIPLE
Net (M³)	Radon Carlister	Cuici. partitor
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):		
		•
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
☐ Rush/Priority (should be prearranged and have supervisory appro	oval)	*
ANALYSIS REQUESTED (For questions, please call 510-620-2911		
☐ Gross Alpha ☐ Gross Bet	☐ Gamma Scar	n far en
☐ Total Uranium ☐ Total Beta	(LSC) U NORM (Gam	ma)
☐ Fotal Radium Tritium (³ H	I) 🚨 Isotopic Ame	ricium / Curium
☐ Radium-226 ☐ Carbon-14	☐ Isotopic Pluto	nium
□ Radium-228 □ Iodine-131	☐ Isotopic Thor	ium .
□ Radon-222 □ Strontium	🥮, 90 🔲 Isotopic Uran	ium 👊 🧢
Other (Specify); Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY		* - 1/1-
1. 3/6/13 / / Om 1 fook		<u> </u>
Date Name (Print)	· Propol	1700
Time Custody Received Organization	Signature	Time Custody Released
2. Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
3. 3-7-13 <u>UA</u>		
Date 11:30 Name (Print)	Dutona Male	Date
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank)	UR/HR=	
A. Condition at Time of Receipt:		☐ Improper Container
□ Acceptable □ Broken Container ○ □ Holding Time Exceeded □ Sample Not Cooled	☐ Leaked in Transit ☐ Insufficient Sample	- Improper container
B. Preservatives/Carriers:		
☐ Added While Sampling ☐ Added in Laboratory	☐ Not Added	☐ Not Applicable



Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0124

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach CA Phone Number: 805-545-6481

Sacramento

95814-5006

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / February 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 2/14/2013

Parameter Method Result +/- CE **MDA** 95 Units Lab No: 13-0124-01 R 96011 Time Collected: 2/13/2013 Sample ID: 14:20 Sampling Point: Diablo Creek Sample Type: Surface Water K-40 EPA 901.1 3.58 +/- 16.7 78.4 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALÝSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch	Date Received	Lab No. (Leave Blank)
850 Marina Bay Parkway, G164 Richmond, CA 94804	Date & Time Sampled	Serial Number
510-620-2911	2/13/13 1420	R 96011
Collector Information	Reporting Information	
Name: /2 ich Treinen Dept./Branch: 00 Box 56 Address: Avila Beach, CA 93424	Name: Dept./Branch:	
Address: Author Box 56	Address:	
Telephone No.: 805-545-6481	Telephone No.:	
Sample Information System Name / Facility: DIABLO CREEK	Billing Agency □ DWFOB() □ RHB □ RWQ0	CB() DTSC
Sampling Point (s):	DWTPB FDB DWR	CDFG
667_	☐ EMB ☐ Other (Specify) _	
System No.:		
TYPE OF SAMPLE (Check all applicable boxes)	St Confess Water	stewater
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WTP)	Surface Water	nt of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Peroxizone / Fluoridated	Coagulated / pH Adjusted
		dge (Semi-solid Samples)
		I/Sediment
Finishing:	₩	ta (Type):
	A Company of the Comp	ner:
Net (M³)	Radon Carlister	ICI.
☐ Air Charcoal Cartridge		
COMMENTS: (Cautions, etc.):	Control of the Contro	en en samen de la companya del companya de la companya del companya de la company
	iced/Frozen: Other: _	
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
☐ Rush/Priority (should be prearranged and have supervisory appr	val)	· · · · · · · · · · · · · · · · · · ·
ANALYSIS REQUESTED (For questions, please call 510-620-2911		
☐ Gross Alpha ☐ Gross Beta	Gamma Scan	
☐ Total Uranium ☐ Total Beta	LSC) INORM (Gamma)	
☐ Total Radium ☐ Tritium (³H		
☐ Radium-226 ☐ Carbon-14	☐ Isotopic Plutoniu	m 🤏 💮
☐ Radium-228 ☐ Iodine-131	☐ Isotopic Thorium	
☐ Radon-222 ☐ Strontium-	99, 90 🔲 Isotopic Uranium	
Other (Specify); Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY	1000	2/13/13
Date Name (Print)		Date
1420 YG#E	INCUAS_	I子〇〇 Time Custody Released
Time Custody Received Organization	Signature	Time Custody Released
Date Name (Print)		Date
Time Custody Received Organization	Signature	Time Custody Released
3. 2-114-13 Name (Print)		Date
Date Name (Print) DWRLR	Oldona M. Ola	
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank)		
A. Condition at Time of Receipt:	□ Leaked in Transit □	Improper Container
□ Acceptable □ Broken Container □ Holding Time Exceeded □ Sample Not Cooled	☐ Insufficient Sample	
B. Preservatives/Carriers:	□ Not Added □	Not Applicable





850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

Drinking Water and Radiation Laboratory Branch

FINAL Analysis Results Report for Task ID. 13-0125

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Sacramento

95814-5006 CA

Phone Number: 805-545-6481

Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / February 2013 Billing Agency: RHB

Samples Received by Lab: 2/14/2013

Parameter Method Result +/- CE MDA 95 Units Lab No: 13-0125-01 R 96006 Time Collected: 2/13/2013 14:20 Sampling Point: Diablo Creek Sample ID: Sample Type: Surface Water Tritium EPA 906.0 -82.30 +/- 147.89 257.65 pCi/L

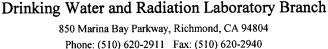
⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST/FOR SAMPLE	ANALYSIS (Radiocnemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	- Nate Received Lab No	(Leave Blank) 0125
Richmond, CA 94804 510-620-2911	2/13/13 1420 RS	96006
Collector Information Name: Rich Treinen Dept./Branch: Po Box 56 Address: Auila Baach, CA 93424	Reporting Information Name: Dept./Branch: Address:	
Telephone No.: 865-54-5 - 64-81	Telephone No:	
Sample Information System Name / Facility: DIABLO CREEK Sampling Point (s): System No.: 552	Billing Agency DWFOB() RHB RWQCB() DWTPB FDB DWR EMB Dother (Specify)	DTSC D, CDFG
TYPE OF SAMPLE (Check all applicable boxes)	*	
☐ Drinking Water ☐ Groundwater ☐ Water Treatment Plant (WTP)	Surface Water Distribution System Wastewater Point of Use	e (POU)
☐ Treated (circle one): Chlorinated / Chlorine Diox	de / Ozonated / Peroxizone / Fluoridated / Coagui	ated / pri Aujusteu
☐ Air Filters Date/Time		emi-solid Samples)
Finishing:	☐ Milk ☐ Soil/Sedime	
Starting:	☐ Wipes ☐ Biota (Type	
Net (M³)	Radon Canister XD Other: (V)	five sample
☐ Air Charcoal Cartridge		· -
COMMENTS: (Cautions, etc.): Field Treatment: Preservatives added: Field Measurement:mR/hr Rush/Priority (should be prearranged and have supervisory appro	lced/Frozen: Qther: Radionuclide(s), if known:	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
☐ Gross Alpha ☐ Gross Beta		w ^e ll.
☐ Total Uranium ☐ Total Beta		
☐ Total Radium ☐ Tritium (³H	The state of the s	ium
Radium-226 Carbon-14		
Radium-228		
Radon-222 Strontium	Age of the control of	and the second s
Other (Specify): Nickel-63	☐ Iron-55	
CHAIN OF CUSTODY 1. 2/13/13 Date 1420 Time Custody Received Organization Organization	Date Pime (2/13/13 1700 Custody Released
2. Date Name (Print)	Date	
Time Custody Received 3. Date Name (Print) Time Custody Received Organization Name (Print) Organization	1) Journ M. Oli- Date	Custody Released
A. Condition at Time of Receipt:	F/HR Leaked in Transit Improj Insufficient Sample	per Container
B. Preservatives/Carriers: Added While Sampling	☐ Not Added ☐ Not Ap	pplicable







FINAL Analysis Results Report for Task ID. 13-0122

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

93424

Billing Agency: RHB

CA

95814-5006

Phone Number: 805-545-6481

Sacramento Phone Number: 916-440-7955

System No:

Site/Project Name: Diablo Canyon NPP / February 2013

Samples Received by Lab: 2/14/2013

Parameter

K-40

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0122-01

Sample ID: R 96015

Time Collected: 2/13/2013 14:03

Sampling Point: Bio Lab Sink

Sample Type: Surface Water

22.7 +/- 12.2

56.4

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

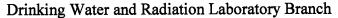
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLI	E ANALYSIS (Radiochemical)	LOUGHUR HERBERT NO FILED
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804	Date Received 2-14-13	Lab No. (Leave Blank) 13-0122
510-620-2911	Date & Time Sampled 2/13/13 1403	R 96015
Collector Information Name: Pich Treinen Dept./Branch: Po Box 56 Address: Avila Beach, CA 93424	Reporting Information Name: Dept./Branch: Address:	
Telephone No.: 905 - 545 (A-8)	Telephone No.:	en e
Sample Information System Name / Facility: BIO LAB Sampling Point (s): System No.:	Billing Agency	
TYPE OF SAMPLE (Check all applicable boxes)		
☐ Drinking Water ☐ Groundwater ☐ Raw ☐ Water Treatment Plant (WTP)	☐ Distribution System □	Wastewater Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chlorinated / Chlorine Did	oxide / Ozonated / Peroxizone / Fluonda	ated / Coagulated / ph Adjusted
☐ Air Filters Date/Time → Finishing:	78	Sludge (Semi-solid Samples) Soil/Sediment
Starting:		Biota (Type):
Net (M ³)		Other:
☐ Air Charcoal Cartridge	A Tradori Carrister	other:
COMMENTS: (Cautions, etc.):	ced/Frozen: Othe	
☐ Field Treatment: Preservatives added:		er: 100 100 100 100 100 100 100 100 100 10
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	<u> </u>
Rush/Priority (should be prearranged and have supervisory app	rdval)	
ANALYSIS REQUESTED (For questions, please call 510-620-2911		
☐ Gross Alpha ☐ Gross Ber	ta Gamma Sca	an .
☐ Total Uranium ☐ Total Beta		nma)
☐ Total Radium ☐ Tritium (³)	H) Isotopic Am	ericium / Curium
☐ Radium-226 ☐ Carbon-14	4 Isotopic Plut	onium
□ Radium-228 □ Iodine-13	1 sotopic Tho	rium
□ Radon-222 □ Strontium	-89, 90 🔲 Isotopic Ura	nium
☐ Other (Specify); ☐ Nickel-63	☐ Iron-55	
1. 2/13/13 Date Name (Print) OLL TO	Alker)-	2/13/13 Date
Time Custody Received Organization	Signature	7700 Time Custody Released
Date Name (Print)		Date
Time Custody Received Organization 3. 2-14-13 UA	Signature	Time Custody Released
Date 4:10 Name (Print) DURLB	19 Mayo W. Ob	Date
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) _ O. 0 / A. Condition at Time of Receipt:	MR/HR Leaked in Transit	☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample	
B. Preservatives/Carriers: Added While Sampling	□ Not Added ′	☐ Not Applicable



California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0123

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56 Avila Beach

93424 CA

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Phone Number: 805-545-6481

Sacramento

95814-5006

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / February 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 2/14/2013

Parameter	M	lethod	Result +/- CE		MDA 95	Units
Lab No: 13-0123-01		R 96002 Surface Water		14:03	Sampling Point:	Bio Lab Sink
Tritium		PA 906.0	-16.06 +/- 149.6	 51	257.65	pCi/L

Task ID: 13-0123

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

arang mga matang mga mga <u>at ara</u>	REQUEST FOR S	AMPLE !		THE RESERVE OF THE PARTY OF THE	
Drinking Water and Radiati 850 Marina Bay Parkway, G1			Date Rec	eived 13	Lab No (Leave Blank)
Richmond, CA 94804		*	/ Date & Time	Sampled	Serial Number
510-620-2911	enter Maria de la companya del companya de la companya del companya de la compan		2/13/13	1403	R 96002
Collector Information			Reporting Informa	tion	A Company of the Comp
Name: / Lich Trains Dept./Branch: Ph Box 5	211		Name:		
Dept./Branch: Pl Box >	b 14 92474	12.2	Dept./Branch: Address:		en e
Address: Avila Boach		*			
Jelephone No.: 805 - 545	5-6481		Telephone No.:	<u> </u>	/
Sample Information System Name / Facility:	in/4B	-13. 1	Billing Agency	RHB RW	QCB() DTSC
Sampling Point (s):	10 011		DWFOB() DWTPB	☐ FDB ☐ DWI	、 /
	DUI	. 1	□ EMB	☐ Other (Specify)	
System No.:					
TYPE OF SAMPLE (Check a		¥],	Surface Water	o v	Vastewater
☐ Drinking Water ☐ Raw	GroundwaterWater Treatment Plan	at (WTP)	Distribution Syst		oint of Use (POU)
	orinated / Chloraminated / Chloraminated	orine Dioxi	de / Ozonated / Per	oxizone / Fluoridate	d / Coagulated / pH Adjusted
☐ Air Filters	Date/Time	- 2	☐ Seawater		iludge (Semi-solid Samples)
	Pate/I fine		☐ Milk		oil/Sediment
Finishing:		1	☐ Wipes		liota (Type):
Starting:			☐ Radon Canister		Other: 1/1/insample
Net (M³)		7	INQUOTI CATROLO.		The state of the s
☐ Air Charcoal Cartridge	<u>*</u>	~ #		9.0	
COMMENTS: (Cautions, etc.	»):, <u>~ 6~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~</u>			J	
☐ Field Treatment: Prese	ervatives added:	- 8			
☐ Field Measurement:		*), if known:	· · · · · · · · · · · · · · · · · · ·
Rush/Priority (should be p	prearranged and have supervi	sory appro	val)		
ANALYSIS REQUESTED (F	or questions, please call 510-	620-2911)			
☐ Gross Alpha	19 19 19 19 19 19 19 19 19 19 19 19 19 1	Gross Beta		Gamma Scan	
☐ Total Uranium	4	Γotal Beta (NORM (Gamm	
☐ Total Radium		Γritium (³Ĥ)		☐ Isotopic Ameri	
☐ Radium-226		Carbon-14		☐ Isotopic Pluton	ium
☐ Radium-228	raj _{ej}	odine-131		☐ Isotopic Thoriu	· ·
☐ Radon-222	Q (Strentium-8	39, 90	Isotopic Uraniu	ım
Other (Specify);	<u> </u>	Vickel-63	ericani	☐ Iron-55	
CHAIN OF CUSTODY	Rick Treiner		11	<i></i> /)	7/13/13
1. $\angle/(2//2)$	Name (Print)	4	///////	///	Date
1403	169E		J/W//		1700 *
Time Custody Received 2.	Organization		Signature V		Time Custody Released
Date	Name (Print)				Date
Time Custody Received	Organization , , ,	37	Signature		Time Custody Released
3. <u>3-14-13</u>	Name (Print)				Date
Date 4:10	Name (Print) DIUR LI	3	_ / Ouli	may Oly	
Time Custody Received	Organization).j. •	Signature	•	Time Custody Released
LABORATORY REMARKS	(Leave Blank) < 0.1	NMK,	HP		
A. Condition at Time of Rece	eipt: Broken Container		∵ । / □ Leaked in Trans	sir	☐ Improper Container
☐ Holding Time Exceeds			☐ Insufficient Sam		
B. Preservatives/Carriers:		$-c_l$			
C) Added Mile Compline	a □ Added in Laborat	an	☐ Not Added	en as al vellagen delpe di 3	□ Not Applicable



Drinking Water and Radiation Laboratory Branch

850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0110

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

CA

Sacramento

95814-5006

Phone Number: 805-545-6481

CA

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / February 2013

Samples Received by Lab: 2/8/2013

System No:

Parameter

Billing Agency: RHB

Result +/- CE

MDA 95

Units

Method

Lab No: 13-0110-01

Sample ID:

Sample Type: Seawater

R 92348

Time Collected: 2/7/2013

10:05

Sampling Point: Outfall Water

K-40

EPA 901.1

347 +/- 21.3

80.3

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

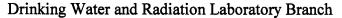
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FC	SAMPLE	NALYSIS Radioch	emical)	The state of the s
Sanitation and Radiation La	boratories Branch		Date Receive	d .	Lab No. (Leave Blank)
50 Marina Bay Parkway, G1	64		× 2-8-17	5	13-0110
ichmond, CA 94804 10-620-2911			Date & Time San		Serial Number
10-020-2011		***	2/7/13 100		R 92348
ollector information			Reporting Information	n	
ame: Rick Treine	n	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Name: Dept./Branch:		
ame: Rick Treine ept./Branch: 00 Box 56 Idress: Avia Beach	1112124		Address:		
HVIIa Deach	CRATTET				
elephone No.: 885-54	5-6481		Telephone No.:		
ample Information ystem Name / Facility:	LOO AITTH	1	Billing Agency DWFOB()	RHB 🗆 RW	QCB() DTSC
ampling Point (s):	CIP OUTPAL		D DWTPB D	FDB D DWI	
	DIT			Other (Specify)	
ystem No.:	<u> </u>		<u> </u>	*	•
PE OF SAMPLE (Check a	Il applicable boxes)		k	—	
Drinking Water	Groundwater	+ Diant (M/TD)	Surface WaterDistribution System		Vastewater Point of Use (POU)
Raw	vvater i reatmen	(Chlorine Diov	ide / Ozonated / Peroxi	izone / Fluoridate	ed / Coagulated / pH Adjuste
Treated (circle one): Chic	mnated / Chioraminated		- Ozonatou / Forest		
Air Filters	Date/Time		Seawater Seawater		Sludge (Semi-solid Samples
Finishing:			Milk	Q 8	Soil/Sediment
Starting:			☑ Wipes	Q E	Biota (Type):
Net (M³)			Radon Canister		Other:
Air Charcoal Cartridge					
		*			
OMMENTS: (Cautions, etc	The state of the s	-, ;)	ced/Frozen:	Other:	
, · · · · · · · · · · · · · · · · · · ·	rvatives added:		# · · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	a)
Field Measurement:		· 하는데 그 그 왕기	Radionuclide(s), if	known:	
Rush/Priority (should be p			1		
NALYSIS REQUESTED (F	or questions, please call	510-620-2911)			
Gross Alpha		☐ Gross Beta	S.	Gamma Scan	
Total Uranium		☐ Total Beta	(in)	NORM (Gamn	
Total Radium		☐ Tritium (³H	Karaman and a second	Isotopic Amer	
Radium-226		☐ Carbon-14	9	Isotopic Plutor	
Radium-228		☐ lodine-131	N. Carlotte and Car	Isotopic Thori	
Radon-222		☐ Strontium-		Isotopic Urani	um
Other (Specify);		☐ Nickel-63		lron-55	
HAIN OF CUSTODY	~ 1 T \		1 1	\sim	-1-113
2/7/13	Rich reine	.N	- (1) Ma	//.	Date
Date /	Name (Print)		111/11/11		1700
Time Custody Received	Organization 1013		Signature		Time Custody Released
Data	Name (Print)	<i>ۇ</i>			Date
Date	Name (Fint)				
Time Custody Received	Organization		Signature		Time Custody Released
Date 2-9-13	Name (Print)		20		Date
13:30	DIL	DCB "	(1) ulu	nea Ul De	6
Time Custody Received	Organization		Signature	<u> </u>	Time Custody Released
ABORATORY REMARKS	(Leave Blank)		DIMP/HR.		
. Condition at Time of Rece	pipt:	· 0			
Acceptable Holding Time Exceeds	☐ Broken Con ed ☐ Sample Not		Leaked in Hansif		☐ Improper Container
☐ Holding Time Exceeds	A Gampe No		in Californ		
Preservatives/Carriers:	g ☐ Added in La	aboratory	Not Added		□ Not Applicable
	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		THE REPORT OF THE PROPERTY OF	THE REPORT OF THE PROPERTY OF	



California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0111

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

CA Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / February 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 2/8/2013

Parameter	Method	Result +/- CE		MDA 95	Units
Lab No: 13-0111-01	Sample ID: R 96106 Sample Type: Seawater	Time Collected: 2/7/2013	10:05	Sampling Point:	Outfall Water
Tritium	EPA 906.0	-134.49 +/- 146.	52	257.65	pCi/L

Page 1 of 1 Task ID: 13-0111

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radio	ochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Reco	eived 12	Lab No. (Leave Blank)
Richmond, CA 94804	, Date & Time S	Sampled	Serial Number
510-620-2911	2/7/13 /	1005	R 96106
Collector Information	Reporting Informa	tion	
Name: Rich Treinen	Name; Dept:/Branch:		
Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424	Address:	and the second s	
		. Salage	and the second of the second
Telephone No.: 805-545 - 6481	Telephone No.:		
System Name / Facility: DCPP OUTFALL	Billing Agency DWFOB()	□ RHB □ RWC	CB() DTSC
Sampling Point (s):		☐ FDB ☐ DWR	
out		☐ Other (Specify)	
System No.:			
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater	Surface Water		astewater.
☐ Raw ☐ Water Treatment Plant (WTP)*			oint of Use (POU)
Treated (circle one): Chlorinated / Chloraminated / Chlorine Diox	ide / Ozonated / Per	oxizone / Fluoridated	/ Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater	□ si	udge (Semi-solid Samples)
Finishing:	Milk	□ se	oil/Sediment
Starting:	☐ Wipes	□ Bi	ota (Type):
Net (M³)	☐ Radon Canister		ther: Iritive Sample
☐ Air Charcoal Cartridge		,	
an An Onarcoar Carange		· ·	
COMMENTS: (Cautions, etc.):	*		the state of the s
☐ Field Treatment: Preservatives added:	lced/Frozen:		
☐ Field Measurement:mR/hr	☐ Radionuclide(s)	, if known:	· · · · · · · · · · · · · · · · · · ·
Rush/Priority (should be prearranged and have supervisory appro	oval)		
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	· · · · · · · · · · · · · · · · · · ·		
☐ Gross Alpha ☐ Gross Beta		Gamma Scan	
☐ Total Uranium ☐ Total Beta	(LSC)	☐ NORM (Gamma	a)
☐ Total Radium ☐ Tritium (³H),	☐ Isotopic Americ	ium / Curium
☐ Radium-226 ☐ Carbon-14		Isotopic Plutoni	um
□ Radium-228 □ Iodine-131		Isotopic Thorium	n
□ Radon-222 □ Strontium-	89, 90	Isotopic Uraniu	m
☐ Other (Specify); ☐ Nickel-63		☐ Iron-55	
CHAIN OF, CUSTODY	10 1		2/7/13
1. 2/7/13 Rich reiner	- []]])[Date 7700
Date 1005 Name (Print) PGEE	WI W	//	1700
Time Custody Received Organization	Signature	4	Time Custody Released
Date Name (Print)			Date
Time Custody Received Organization	Signature	· · · · · · · · · · · · · · · · · · ·	Time Custody Released
3. 2-8-13 U4	٠٠٠ ١٠٠٠ خ ١٠٠٠		
Date 13:30 Name (Print) DWRLB	(1) istore	a Wi All.	Date
Time Custody Received Organization	Signature	*	Time Custody Released
LABORATORY REMARKS (Leave Blank)			
A. Condition at Time of Receipt:	- □ Leaked in Trans		Improper Container
□ Acceptable □ Broken Container □ Holding Time Exceeded □ Sample Not Cooled	D Insufficient Sam		a miproper container
B. Preservatives/Carriers:	☐ Not Added		3 Not Applicable



State of California - Health and Human Services Agency California Department of Public Health

Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0067

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56

93424

CDPH - RHB, 1500 Capitol Av., MS 7610 CA

Avila Beach CA

Sacramento

95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 1/24/2013

Parameter Method Result +/- CE MDA 95 Units Lab No: 13-0067-01 Sample ID: R 96122 Time Collected: 1/23/2013 09:05 Sampling Point: Bio Lab Sink Sample Type: Drinking Water K-40 EPA 901.1 1.40 +/- 17.0 79.9 pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

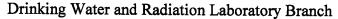
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	LE ANALYSIS (Radiochemical)	보고 하는 사람들이 다른 사람들이 되었다.
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received	Lab No. (Leave Blank)
Richmond, CA 94804 510-620-2911	Date & Time Sampled	Serial Number R 96122
Collector Information Name: Lick Treinen Dept./Branch: P) Box 56 Address: Avila Beach, CA 93424	Peporting Information Theme: Dept./Branch: Address:	K 30122
Telephone No.: 805 - 545 - 6481	Felephone No.:	
Sample Information System Name / Facility: \$810 LAB Sampling Point (s): System No. 1	DWFOB() RHB I DWTPB I FDB I	RWQCB*() DTSC
System No	EMB Other (Spec	(iiy)
TYPE OF SAMPLE (Check all applicable boxes) Drinking Water Groundwater Water Treatment Plant (WTP Treated (circle one): Chlorinated / Chloraminated / Chlorine Di) 📮 Distribution System	Wastewater Point of Use (POU) ated / Coagulated / pH Adjusted
☐ Air Filters Date/Time		Sludge (Semi-solid Samples)
Finishing:	3423	3 Soil/Sediment
Starting:	Wipes	Biota (Type):
Net (M³)	Radon Canister	Other:
Air Charcoal Cartridge		S. Carlotte and Car
COMMENTS: (Cautions, etc.):		
☐ Field Treatment: Preservatives added:		er:
Field Measurement:mR/hr	Radionuclide(s), if known:	
Rush/Priority (should be prearranged and have supervisory app		
ANALYSIS REQUESTED (For questions, please call 510-620-291	1)	
☐ Gross Alpha ☐ Gross Be		an
☐ Total Uranium ☐ Total Bet		
☐ Total Radium ☐ Tritium (³ ☐ Radium-226 ☐ Carbon-1		ericium / Curium
D D-# 000	— .00.0p.0a	
☐ Radon-222 ☐ Strontium		·
☐ Other (Specify); ☐ Nickel-63		inium
CHAIN OF CUSTODY	2	*
1. 1/73/13 /c/L / reinan Name (Print) ALT	1/1/1/2	1/23/13
0705 WOGIE		Date 700
Time Custody Received Organization 2.	Signature	Time Custody Released
Date Name (Print)		Date
Time Custody Received Organization 3.	Signature	Time Custody Released
Date Name (Print) DWR(B	09 7000000	Date
Time Custody Received Organization	Signature Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt: Acceptable Holding Time Exceeded Broken Container Sample Not Cooled	MR/HR D Leaked in Transit D Insufficient Sample	☐ Improper Container
B. Preservatives/Carriers: ☐ Added While Sampling ☐ Added in Laboratory	✓ □ Not Added	☐ Not Applicable

State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0068

Investigator: Rick Treinen

RHB

Requestor: Roger Lupo

RHB

PO Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

CA 95814-5006

Phone Number: 805-545-6481

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 1/24/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0068-01	Sample ID: R 96133 Sample Type: Drinking Water		09:05 Samplin	g Point: Bio Lab Sink
Tritium	EPA 906.0	-104.38 +/- 147.3	31 257.65	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

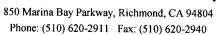
⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALYSIS (Radiochemical)	
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received	Lab No. (Leave Blank)
Richmond, CA 94804 510-620-2911	Date & Time Sampled 1/23//3 - 0905	R 96133
Collector Information Name: Rich Treiner Dept./Branch: PO Box 56 Address: Avila Beach, CA 93424	Reporting Information Name: Dept./Branch: Address:	
Telephone No.: 80 \$ \$45 -6481	Telephone No.:	•
Sample Information System Name / Facility: Sampling Point (s): System No.: BIO LAB DWI	Billing Agency DWFOB() RHB RW DWTPB FDB DW EMB Other (Specify	The state of the s
TYPE OF SAMPLE (Check all applicable boxes)	<u> </u>	
X Drinking Water ☐ Groundwater	☐ Distribution System ☐	` • • • • • • • • • • • • • • • • • • •
☐ Air Filters Date/Time	☐ Seawater ☐	Sludge (Semi-solid Samples)
Finishing:	□ Milk □	Soil/Sediment
Starting:	☐ Wipes ☐	Biota (Type):
Net (M³)	Radon Canister	Other: Iritium Sample
☐ Air Charcoal Cartridge	9	y
COMMENTS: (Cautions, etc.):		ing the state of the transmission of the second state of the secon
	ced/Frozen:bther	
☐ Field Measurement:mR/hr	Radionuclide(s), if known:	
Rush/Priority (should be prearranged and have supervisory appro	(al)	
ANALYSIS REQUESTED (For questions, please call 510-620-2911)		
☐ Gross Alpha ☐ Gross Beta	Ú.	
☐ Total Uranium ☐ Total Beta		ma) a si
☐ Total Radium Tritium (³H)	ត	
☐ Radium-226 ☐ Carbon-14	☐ Isotopic Pluto	
☐ Radium-228 ☐ Iodine-131	Trans.	
☐ Radon-222 ☐ Strontium-8		um en
☐ Other (Specify); ☐ Nickel-63 ☐ CHAIN OF CUSTODY	☐ Iron-55	
1. 1/73/13 Mich reinen Date 905 Name (Print)	MANA	1/23/13 Date 1700
2.	Signature	Time Custody Released
Date Name (Print)	Marine Control of the	Date
Time Custody Received Organization 3.	Signature	Time Custody Released
Date 11:00 Name (Print) DWRB	Vulorio M. ali	Date
Time Custody Received Organization	Signature	Time Custody Released
LABORATORY REMARKS (Leave Blank) © 0.01. M. A. Condition at Time of Receipt: Broken Container	RIMR	
☐ Holding Time Exceeded ☐ Sample Not Cooled ☐	☐ Leaked in Transit	☐ Improper Container
B. Preservatives/Carriers: Added While Sampling Added in Laboratory	□ Not Added	☐ Not Applicable



State of California - Health and Human Services Agency California Department of Public Health

Drinking Water and Radiation Laboratory Branch





FINAL Analysis Results Report for Task ID. 13-0065

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

CA

Sacramento

95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 1/24/2013

Parameter

Method

Result +/- CE

MDA 95

Units

Lab No: 13-0065-01

Sampling Point: Diablo Creek

Sample ID: Sample Type: Surface Water

R 96124

Time Collected: 1/23/2013

08:45

K-40

EPA 901.1

10.5 +/- 12.9

60.1

pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	REQUEST FOR SAM	MPLE ANALYSIS (Radioc		
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164 Richmond, CA 94804		Date Repen	3	Lab No. (Leave Blank) 13-0065
510-620-2911		Date & Time Sa 1/23/13-08		R 96124
Collector Information /		Reporting Information		
Name: Tour Hoo Dept./Branch: PO PX Address: AUG PGA	56	Name: Dept./Branch:	,,,	
<i>₽</i> \	CN, CA 93424	Address.		
Telephone No. (805) 54	15-4409	Telephone No.:		
Sample Information System Name / Facility:	DIABLO CASTAL	Billing Agency		tarent care
Sampling Point (s):		· · · · · · · · · · · · · · · · · · ·	IRHB □ R IFDB □ D	WQCB() DTSC
Contam No.	552			WR ☐ CDFG fy)
System No.:				'77
TYPE OF SAMPLE (Check			_	
☐ Drinking Water ☐ Raw	☐ Groundwater ☐ Water Treatment Plant (V	Surface Water	, <u> </u>	Wastewater Point of Use (POU)
	orinated / Chloraminated / Chlorine	vir) a Distribution System ■ Dioxide / Ozonated / Peroxi	izone / Fluorids	ted / Congulated / pH Adjusted
	*****		ZONE / Fluoride	ited / Coagulated / pri Adjusted
☐ Air Filters	Date/Time	☐ Seawater		Sludge (Semi-solid Samples)
Finishing:		☐ Milk		Soil/Sediment
Starting:		≨ □ Wipes	D	Biota (Type):
Net (M³)		🗖 Radon Canister		Other:
☐ Air Charcoal Cartridge				
COMMENTS: (Cautions etc.	c.)::: <u></u>		w	
	ervatives added:			and the state of t
	mR/hr	_ lced/Frozen:		
	prearranged and have supervisory	Radionuclide(s), if	Known:	
		249	a to the second	
	or questions, please call 510-620-2			
☐ Gross Alpha	☐ Gross		Gamma Sca	n i da kacamatan da k
☐ Total Uranium	□ Total	Beta (LSC)	NORM (Gam	nma)
☐ Total Radium	☐ Tritiur	n (³ H)	lsotopic Ame	ericium / Curium
Radium-226	☐ Carbo	44	isotopic Pluto	onium
☐ Radium-228	☐ lodine	÷131 □	Isotopic Thor	ium
☐ Radon-222	☐ Stront	tium-89, 90	Isotopic Urar	nium e e e e e e e e
Other (Specify);		I-63 🖵	Iron-55	
CHAIN OF CUSTODY	h.v			1 /_
1. 1/23//3	Name (Print)		e e e	1/23/13
0845	1696	1/2		Date 700
	Organization	Signeture		Time Custody Released
2. Date	Name (Print)			Date
		<u></u>		Date
Time Custody Received 3.	Organization () A	Signature		Time Custody Released
Date	Name (Print)	10	A. M	Date
Time Custody Received	Occasization DWRLB	- Wulm	27 alle	
Time Custody Received	Organization	Signature	<u>~</u>	Time Custody Released
LABORATORY REMARKS (IMR/HR		
 A. Condition at Time of Received Acceptable 	ipt: Broken Container			
☐ Holding Time Exceeded		☐ Leaked in Transit Insufficient Sample		☐ Improper Container
B. Preservatives/Carriers:				
☐ Added While Sampling	Added in Laboratory	、 □ Not Added		☐ Not Applicable

State of California - Health and Human Services Agency

California Department of Public Health





Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, Richmond, CA 94804

Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0066

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CA 93424 CDPH - RHB, 1500 Capitol Av., MS 7610

Sacramento

CA 95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 1/24/2013

Parameter	Method	Result +/- CE		MDA 95	Units
Lab No: 13-0066-01	Sample ID: R 96127 Sample Type: Surface Water	Time Collected: 1/23/2013	08:45	Sampling Point:	Diablo Creek
Tritium	EPA 906.0	-28.10 +/- 149.3	30	257.65	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particular radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FOR SAMPLE	ANALTSIS (Radiochemical)
Drinking Water and Radiation Laboratory Branch , 850 Marina Bay Parkway, G164	Date Received Lab No. (Leave Blank) 1-24-13 13-00-66
/ Richmond, CA 94804	. Date & Time Sampled Serial Number
510-620-2911	1/23/13 - 0845 R 96127
Collector Information	Reporting Information
Name: Tot Hook Dept./Branch: P.O. BIX Sto Address: AUILA BHACH, CA 93424	Name: Dept./Branch:
Address: PO BIX 56	Address:
AVILA BRACHICA	
Telephone No.: (705) 57/5 - 4409 Sample Information	Telephone No.: \ Billing Agency
System Name / Facility: DIABLO CASEAL	DWFOB() RHB RWQCB() DTSC
Sampling Point (s): 552	DWTPB DFDB DWR DCDFG
System No.:	☐ EMB ☐ Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes)	
☐ Drinking Water ☐ Groundwater	Surface Water
Raw Water Treatment Plant (WTP)	Distribution System Point of Use (POU)
	xide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	☐ Seawater ☐ Sludge (Semi-solid Samples)
Finishing:	□ Milk □ Soil/Sediment
Starting:	☐ Wipes ☐ Biota (Type):
Net (M³)	Radon Canister Other: TATIVH SAHPLE
☐ Air Charcoal Cartridge	\$10 / T
COMMENTS: (Cautions, etc.):	
Field Treatment: Preservatives added:	(ced/Frozen: Otter:
Field Measurement:mR/hr	Radionuclide(s), if known:
Rush/Priority (should be prearranged and have supervisory appr	
ANALYSIS REQUESTED (For questions, please call 510-620-2911	
☐ Gross Alpha ☐ Gross Bet	
☐ Total Uranium ☐ Total Beta	
☐ Total Radium Tritium (³)	
☐ Radium-226 ☐ Carbon-1 ²	
Radium-228 Iodine-131	
Radon-222 Strontium	and the state of t
Other (Specify); Nickel-63	☐ Iron-55
CHAIN OF CUSTODY 1. 1/23/13 1021 1-60 K	1/22/12
1. 1/23/13 / ON 1/00 K Date Name (Print)	1/23/75 Date
D845 PGIE	1 Tour Dal 1700
Time Custody Received Organization 2.	Signature / Time €ustody Released
Date Name (Print)	Date
Time Custody Received Organization 3.	Signature Time Custody Released
Date Name (Print)	Date
Time Custody Received Organization	Signature Time Custody Released
LABORATORY REMARKS (Leave Blank) ()- ()- () 1 /VI k	PHR
☐ Acceptable ☐ Broken Container	☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample
B. Preservatives/Carriers:	



State of California - Health and Human Services Agency California Department of Public Health

Drinking Water and Radiation Laboratory Branch



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940

FINAL Analysis Results Report for Task ID. 13-0031

Investigator: Tom Hook

RHB

Requestor: Roger Lupo

RHB

P O Box 56

93424 CA

CDPH - RHB, 1500 Capitol Av., MS 7610

Avila Beach

Sacramento

CA 95814-5006

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

System No:

Billing Agency: RHB

Samples Received by Lab: 1/15/2013

Parameter	Method	Result +/- CE	MDA 95	Units
Lab No: 13-0031-01	Sample ID: R 96119 Sample Type: Seawater	Time Collected: 1/14/2013	07:40 Sampling Point	: Outfall Water
K-40	EPA 901.1	353 +/- 17.5	58.7	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

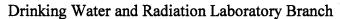
⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

REQUEST FUR SAMPLE	ANAL 1515 (Radiocnemical)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	Date Received Lab No. (Leave Blank) 1-15-18 13-0031
Richmond, CA 94804	Date & Time Sampled Serial Number
510-620-2911	1/14/B 0740 R 96119
Collector Information	Reporting Information
Name: Ton Hook	Name:
Address: POBOX 5% AND PRACHICA 93424	Dept./Branch: Address:
Telephone No.: $/805)$ 545 - 4409 Sample Information	Telephone No.: Billing Agency
System Name / Facility: // OF DUTHALL	DWFOB() RHB RWQCB() DTSC
Sampling Point (s):	D DWTPB FDB DWR CDFG
System No.:	☐ EMB ☐ Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes)	
☐ Drinking Water ☐ Groundwater	Surface Water Wastewater
Raw Water Treatment Plant (WTP)	The state of the s
☐ Treated (circle one): Chlorinated / Chloraminated / Uniorine Diox	dde / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater Sludge (Semi-solid Samples)
Finishing:	☐ Milk ☐ Soil/Sediment
Starting:	☐ Wipes ☐ Biota (Type):
Net (M ³)	Radon Canister
☐ Air Charcoal Cartridge	
COMMENTS: (Cautions, etc.):	
Field Treatment: Preservatives added:	ced/Frozen: Other;
☐ Field Measurement:mR/hr	Radionuclide(s), if known:
☐ Rush/Priority (should be prearranged and have supervisory appro	oval)
ANALYSIS REQUESTED (For questions, please call 510-620-2911)	
☐ Gross Alpha ☐ Gross Beta	<u> </u>
☐ Total Uranium ☐ Total Beta	(LSC) NORM (Gamma)
☐ Total Radium ☐ Tritium (³H	
☐ Radium-226 ☐ Carbon-14	· ·
Radium-228	
Radon-222 Strontium-	89, 90
Other (Specify); Nickel-63	□ Iron-55
CHAIN OF CUSTODY 1. 1/14/13 Ton Hok	1/14/13
1. 1/4/15 Name (Print)	Date 1700
Time Custody Received Organization	Signature Time Custody Released
2	
Date Name (Print)	Date
Time Custody Received Organization	Signature Time Custody Released
3. 1-15-13 Name (Print)	Date
$\frac{11\cdot 20}{11\cdot 20}$	Julyan ale
Time Custody Received Organization	Signature Time Custody Released
LABORATORY REMARKS (Leave Blank)	
A. Condition at Time of Receipt: Broken Container Broken Container	☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample
B. Preservatives/Carriers: ☐ Added While Sampling ☐ Added in Laboratory	☐ Not Added ☐ Not Applicable

State of California - Health and Human Services Agency

California Department of Public Health



850 Marina Bay Parkway, Richmond, CA 94804 Phone: (510) 620-2911 Fax: (510) 620-2940



FINAL Analysis Results Report for Task ID. 13-0032

Investigator: Tom Hook

System No:

RHB

Requestor: Roger Lupo

RHB

P O Box 56 Avila Beach

CDPH - RHB, 1500 Capitol Av., MS 7610

CA 93424 Sacramento

95814-5006 CA

Phone Number: 805-545-4409

Phone Number: 916-440-7955

Site/Project Name: Diablo Canyon NPP / January 2013

Billing Agency: RHB

Samples Received by Lab: 1/15/2013

Parameter	Method	Result +/- CE	N	/IDA 95	Units
Lab No: 13-0032-01	Sample ID: R 96128 Sample Type: Seawater	Time Collected: 1/14/2013	07:40	Sampling Point:	Outfall Water
Tritium	EPA 906.0	-92.34 +/- 147.6	 6 3	257.65	pCi/L

⁽¹⁾ Precision criteria for these method were determined to be acceptable.

⁽²⁾ CE is the counting error at the 95% confidence level as defined in Prescribed Procedures for Measurement of Radioactivity in Drinking Water, EPA-600/4-80-032, August 1980.

⁽³⁾ MDA95 is the sample specific minimum detectable activity at the 95% confidence level which is the LLD95 devided by 2.22, the efficiency, and the yield, and may include factors for abundance, decay, and ingrowth, dependent on the particilar radionuclide. LLD95 is defined in section 7010G, Standard Methods for the Examination of Water and Wastewater, American Water Works Association, 21st Ed., 2005, where Sb is the aquare root of the instrument background count rate.

	Date Received Lab No. (Leave Blank)
Drinking Water and Radiation Laboratory Branch 850 Marina Bay Parkway, G164	r 1-15-13 13-0032 -
Richmond, CA 94804	Date & Time Sampled Serial Number
510-620-2911	1/14/13 0740 R 96128
Collector Information	Reporting Information
Name: Ton Hot	Name: Dept./Branch:
Dept./Branch: 05 /5/47	Address:
Address: AMA BLACK CA 93424	
Telephone No.: (205) 575 - 4109	Telephone No.:
Sample Information System Name / Facility: THEP DUTIALL	Billing Agency
System Name / Facility: 1) CAP OUT THE	DWFOB() RHB RWQCB() DTSC
Sampling Point (s):	DWIFE 2 100 2 5th
System No.:	EMB Other (Specify)
TYPE OF SAMPLE (Check all applicable boxes)	
Croundwater	☐ Surface Water ☐ Wastewater
Mater Treatment Plant (WTP)	☐ Distribution System ☐ Point of Use (POU)
☐ Treated (circle one): Chlorinated / Chloraminated / Chlorine Dic	oxide / Ozonated / Peroxizone / Fluoridated / Coagulated / pH Adjusted
☐ Air Filters Date/Time	Seawater Sludge (Semi-solid Samples)
An interest	☐ Milk ☐ Soil/Sediment
Finishing:	☐ Wipes ☐ Biota (Type):
Starting:	Radon Canister Other Tritium Cample
Net (M³)	Nauon Camater
☐ Air Charcoal Cartridge	
COMMENTS: (Cautions, etc.):	
☐ Field Treatment: Preservatives added:	ced/Frozen: Offier:
☐ Field Measurement:mR/hr	Radionuclide(s), if known:
Rush/Priority (should be prearranged and have supervisory app	proval)
ANALYSIS REQUESTED (For questions, please call 510-620-291	
☐ Gross Alpha ☐ Gross Be	
☐ Total Uranium ☐ Total Be	
☐ Total Radium ☐ Tritium (
☐ Radium-226 ☐ Carbon-	
☐ Radium-228 ☐ lodine-1	
☐ Radon-222 ☐ Strontiur	n-89, 90 Isotopic Uranium
Other (Specify);	3 🔲 Iron-55
CHAIN OF CUSTODY	1/4/13
1 114/13 ON HOOK	Date
Date 0740 Name (Print)	1/00
Time Custody Received Figanization	Signature Time Custody Released
2	Date
Date Name (Print)	
Time Custody Received Organization	Signature Time Custody Released
3. 1-15-1-1 OR	Date
Date 2004 Name (Print)	ulona y Eli
Time Custody Received Organization	Signature Time Custody Released
LABORATORY REMARKS (Leave Blank) A. Condition at Time of Receipt:	,
☐ Acceptable ☐ Broken Container .	☐ Leaked in Transit ☐ Improper Container
☐ Holding Time Exceeded ☐ Sample Not Cooled	☐ Insufficient Sample
B. Preservatives/Carriers:	☐ Not Added ☐ Not Applicable
☐ Added While Sampling ☐ Added in Laboratory	□ Not Added □ Not Applicable